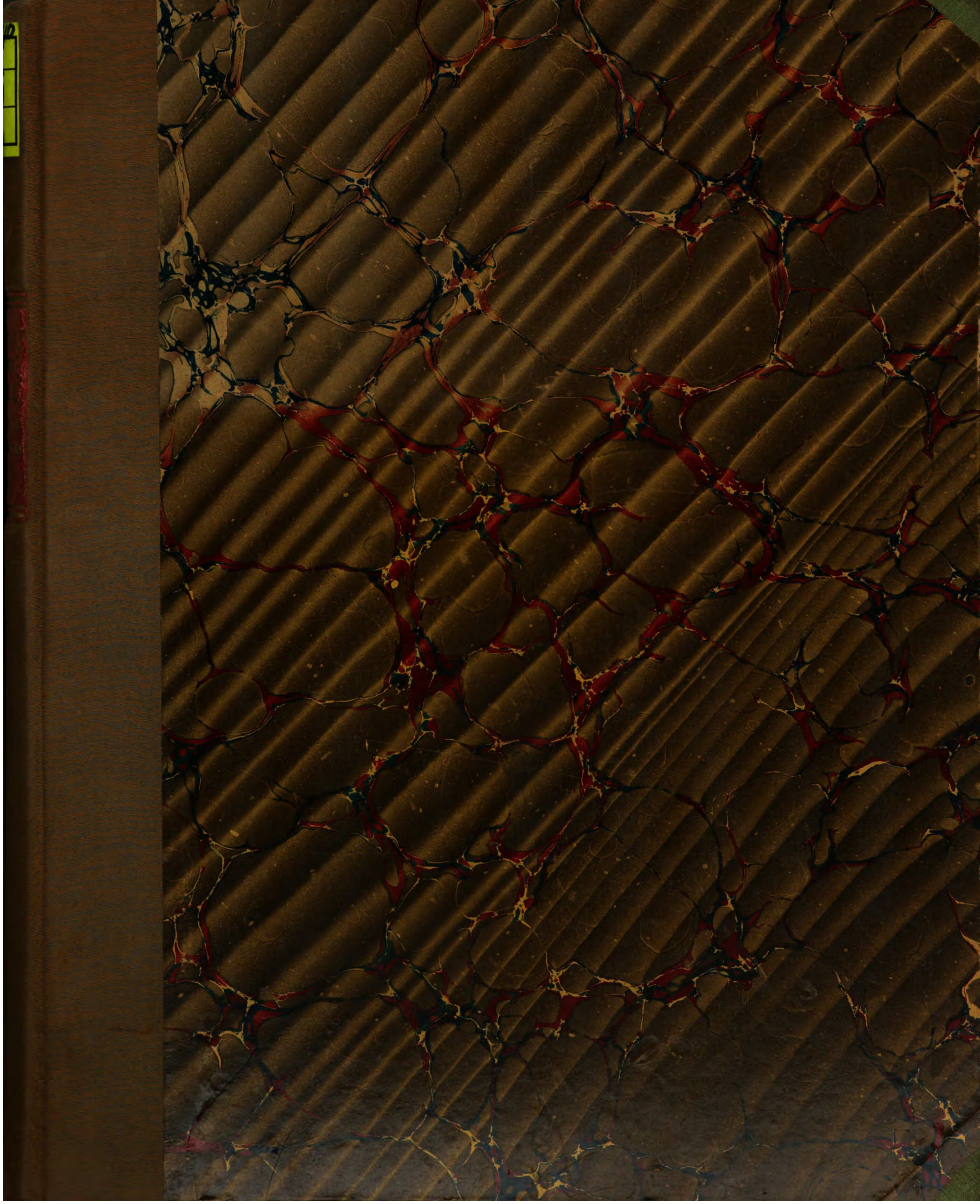




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THE
ZOOLOGY
OF
THE VOYAGE OF H.M.S. SULPHUR,

UNDER THE COMMAND OF

CAPTAIN SIR EDWARD BELCHER, R.N., C.B., F.R.G.S., ETC.

DURING THE YEARS 1836-42.

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*PUBLISHED UNDER THE AUTHORITY OF  
THE LORDS COMMISSIONERS OF THE ADMIRALTY.*  
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Edited and Superintended by

RICHARD BRINSLEY HINDS, ESQ., SURGEON, R.N.

ATTACHED TO THE EXPEDITION.

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VOL. II.  
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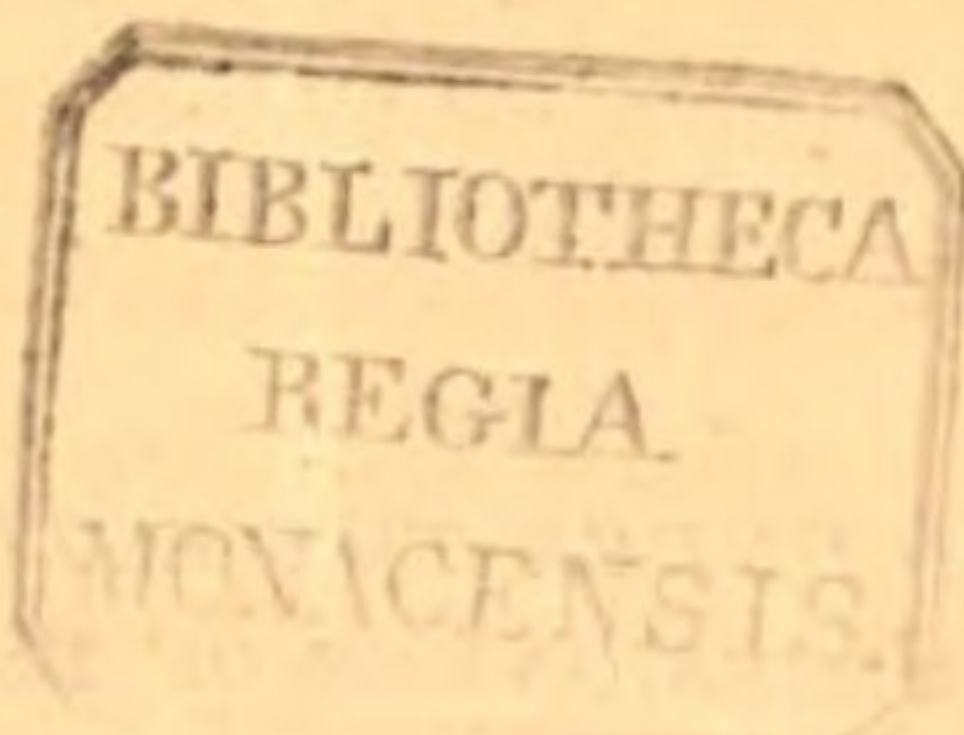
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MOLLUSCA, BY R. B. HINDS, ESQ.  
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LONDON:
PUBLISHED BY SMITH, ELDER AND CO., 65, CORNHILL.
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ZOOLOGY

THE VOYAGE OF H.M.S. SUTHERLAND

CAPTAIN SIR EDWARD BELCHER, BART., F.R.S., F.R.S.E., &c.



VOL. II.

MOLLUSCA, BY R. B. WILKES, ESQ.

LONDON:

PUBLISHED BY SMITH, ELDER AND CO., 25, CORNHILL.

MOLLUSCA.

THE voyage of H. M. S. Sulphur proved eminently prolific in shells, and a very considerable acquisition has been made to science. The very careful search which was unceasingly made on all the shores visited throughout the voyage, and the constant use of the dredge and trawl, whenever circumstances permitted, have contributed to this ; but, above all, the close examination of the proceeds of the dredge, by siftings and diligent washings, brought into notice a great number of small but very interesting species, the great majority of which was previously unknown. This method of search has been hitherto practised to such a very limited extent, and comparatively in such few places, that it is beyond conjecture the number of species to be brought to light is very great, and will most probably much exceed those already known. Nor will the labours of the conchologist be rewarded only by small species, for many of no mean size were thus obtained by us, as an inspection of the plates will show. Indeed it is truly surprising how fecund is the bed of the ocean, in not only Mollusca but organized beings generally ; and it has often been my fortune to have been suddenly inundated by the dredge and trawl with a far greater number of beings than the climate, and conveniences of a vessel, permitted me to preserve, and which also gave me several days of unremitting occupation. Confining our attention to the shells,—for, though less worthy, we avoid some circumlocution by speaking of them instead of the animals,—we on one occasion spent a forenoon in the Bay of Guayaquil in using the dredge, and the result gave upwards of fifty species ; and at other times I have repeatedly enumerated between twenty and thirty species from a single cast. The scythe of the dredge collects from a very limited space over a given area, yet still I doubt much if I ever procured so many species of plants, after having traversed during a whole day the rich woods of the neighbouring forest.

The practical conchologist soon distinguishes, and justly so, between the shells which he finds on or beneath the rocks, in the sands, or among the mud of the shore, and those which are obtained at different depths away from the shore ;

and I shall briefly show, that in any given latitude, the circumstances under which animals live are very different in these localities. Within the tropics the shores are washed by water of a high temperature and of much uniformity, usually ranging from 80° to 87° , and during a portion of the tide many are left exposed to the unobstructed rays of the sun on rocks of a very great degree of heat, such as the species of *Littorina*, *Patella*, *Siphonaria*, and *Balanus*. Whilst, in the near neighbourhood, at a few fathoms beneath the surface, the temperature will be still more uniform, but less by fifteen or twenty degrees. Some observations were made at different depths with the self-registering thermometer to ascertain these circumstances.

Quibo, Veragua	30 Fathoms,	temp. $55^{\circ}60^{\circ}$	Surface, 82°	Air, 86°	N. lat. $7^{\circ} 30'$
China Sea	84 „	„ 66	„ 84	„ 85.5	„ 5 24'
Bay of Magdalena	6 „	„ 78	„ 69	„ 67	„ 24 38'
Cape of Good Hope	65 „	„ 62	„ 64	„	S. lat. 34

If temperature alone influenced molluscos animals in the selection of locality, and knowing as we do that within the tropics the high temperature of the surface water gradually declines till at 100 fathoms it is usually about 49° , and at 1000, 44° ; then we might expect that as we descended we should meet with species corresponding to those which inhabit the shores of progressively higher latitudes. Our operations were not usually conducted in very deep water, or often above fifty fathoms; for we found by experience that deep dredgings endangered the safety of our machinery, and we had rarely during the voyage the means of replacing it. But under this depth I cannot say that I have observed this to be the case, and we are then compelled to admit the influence of incumbent pressure, and perhaps other causes. There are several groups which in a very marked manner select situations in deep water for their abode, as *Cancellaria*, nearly all the *Pleurotoma*, *Marginella*, *Nucula*, *Corbula*, and *Terebratula*. The numerous species of *Nucula* are found from the Polar seas of both hemispheres to the Equator, but are always abysso-pelagic. There are others which are found in both situations, and particularly the full genus *Chiton*. It will, however, be seen that the species are here very careful in the selection of their locality; those which are littoral will not be found in deep water, and *vice versa*; some prefer dark situations, under stones, or in the fissures of rocks above low water; others precisely at the limits of low water, or slightly submerged; others, again, at the depth of a few fathoms; and, lastly, others at considerable depths. At Panama a species of *Pecten* was found at a depth which subjected it to a pressure equal to upwards of ten atmospheres. These are the circumstances to which, though exceptions may be found, they are as a rule strikingly obedient.

The peculiarities which molluscos animals display under increased pressure,

naturally provokes comparison with those of vegetation in alpine situations, where atmospheric pressure is diminished. And it will be found that the influence is much more conspicuous among the former; though in both the most decided difference will be traced to species rather than to groups.

The character of the floor of the ocean is an important guide as to the animals which may be expected to inhabit it. *Oliva*, *Terebra*, *Voluta*, *Pecten* and *Donax* prefer a surface more or less sandy; *Conchiferæ*, generally, are prone to muddy situations, and in such they are proportionately in numbers. *Venus gnidia* occurs in muddy situations along the extent of the west coast of America between the Bay of Guayaquil and San Blas, or about fourteen hundred miles; but it is not found in the harbour of Acapulco, the sandy floor of which is very prolific in shells, where it is replaced by *Venus cancellata*, which is partial to sand. And as lichens are scarce in a country which has little or no forest, so, for an analogous reason, species of *Fissurella* and *Chiton* are only to be expected on a gravelly or stony surface. The floor of the Bay of Guayaquil consists of sand, mud, and all the intermediate states; I have mentioned how prolific some parts proved to us, yet in other and sandy situations the dredge was used for hours without the smallest success. Wherever coral prevails its influence is very manifest. Throughout the Pacific Ocean this is witnessed on a large scale; but it is more interesting to observe it on the western shores of America, where, throughout its vast extent, small patches of coral only rarely occur. At the island of Cano, near the Gulf of Nicoya, we dredged among coral, and found that the shells all displayed a delicacy in their conformation, and particularly in their colouring. There is no disposition to increased richness in colours, but the reverse, some being nearly blanched, and others with tints more pale and delicate than usual. In the Pacific, which is chiefly inhabited by shells that have migrated from the Indian seas, its influence is extended to the size, and if examined from west to east, many species will be found gradually to diminish.

During our sojournings, we were frequently called on to notice the absence of groups, which, from the climate and latitude, it might naturally be expected would have been represented. It is certainly very curious that the two large genera of *Conus* and *Cypræa* have no representatives on the west coast of America south of Guayaquil. In the Pacific, a great many large and important groups are entirely absent, or very nearly so, particularly those which are abysso-pelagic. In this ocean, the bottom is usually at an unfathomable depth; and the means of search, and most probably of habitation, are extremely limited. Its peculiar species are few, being chiefly fed by migration from other seas; thus there are no, or scarcely any, representatives of *Cancellaria*, *Pleurotomaceæ*, *Marginella*, *Nucula* or *Corbula*. The species met with are usually found very numerous in individuals, which I do

not regard as attributable to their fecundity, but rather as the circumstance which has enabled them to effect their diffusion.

Scarcely an American shell is seen in the Pacific. On leaving the American coast, and touching at the Marquesas, a few individuals of abundant Indian species are noticed, as *Purpura persica*, *Ricinula digitata*, *Conus marmoreus*, *Cypræa carneola*, *Solarium perspectivum*, *Cytheræa gibbia*, and others, but in considerable scarcity. Proceeding towards the westward, additional Indian species appear at every group, and the conchology becomes gradually more rich and abundant.

I was somewhat surprised to find, that there was a marked difference in the shells inhabiting the interior and the exterior of coral islands. Within, the water of the lagoon is always tranquil, and scarcely ripples on the shores, which are formed of small fragments of coral or coral sand; without, an agitated sea beats unceasingly on a barrier of hard coral rock. In both situations, a platform exists, which at low-water is left bare, but at high-water is covered from a few inches to about two feet. Among the shells confined to the interior are *Tellina scobinata*, *Cytheræa gibbia*, *Pecten pallium*, *Pedum spondyloideum*, *Conus betulinus*, *C. textilis*, *C. geographus*, and some others, with several of the well-known Pacific species of *Mitra*, *Cypræa*, *Pteroceras*, and *Terebra*. Those of the exterior are more particularly several species of *Ricinula*, *Purpura persica*, *Conus hebræus*, *C. sponsalis*, *C. vermiculatus*, *Turbo setosus*, and *Cypricardia rostrata*. The three cones abound in myriads on the outer platform; but *C. hebræus* is also found in the lagoon, excessively rare, and in unusually fine condition; whilst without, it is equally abundant, but quite dwarf. The shells of the interior are remarkable for their thin epidermis, delicacy of colour, and for the very severe fractures they have sustained during some period of their existence, and the reparation of which often originated some strange distortions.

The terrestrial gasteropodes have also their partialities. The influence of a moist climate is well-known, and need not be dwelt upon; at the Sandwich Islands and New Ireland, we acknowledged its effects in the great variety of species and the multitudes of individuals. And of the numerous circumstances under which they are found, I shall only mention that certain kinds are prone to particular elevations, beyond which they do not seem inclined to exist.

These are but a few brief remarks on a subject not without interest, and which might be considerably extended. In the following pages such species only are introduced as are regarded as hitherto undescribed, or where some observations are elicited. From the American portion of our voyage, a number of shells have, within the last few years, been described; but comparatively so few, that it rather pointed the way, than deprived our researches of originality. Notwithstanding the "fièvre conchologique," which, with some truth a French writer has remarked,

rages at present, few of the above shells are yet figured, and I was under the necessity of availing myself of the collection of Mr. Hugh Cuming for comparison. It is with much gratification I acknowledge the handsome manner in which his very splendid collection was made subservient to my researches; and particularly as it has enabled me to describe with confidence a number of small species, which otherwise must have been left in doubt, and consequently without notice.

CEPHALOPODA.

FAMILY—NAUTILACEÆ.

NAUTILUS. *Linnæus*.

1. *NAUTILUS pompilius*, Linnæus.

During our visit to Amboina, the animal of this shell was captured by a native on the coast of the island, and very probably in the vicinity of where Rhumphius obtained his specimen. It was carried to the Governor, Colonel De Steurs, who is distinguished for his attachment to conchology. He immediately presented it to Sir Edward Belcher, from whom it came into my hands for preservation. At this time it had evidently been removed from the water for some hours, as it gave out a tainted smell; life was, however, not quite extinct, and some sluggish movements were visible. It had hitherto been undisturbed, but the animal was now carefully removed from the shell, and placed in spirits; whilst the shell was marked, and packed separately from all others of the same kind. On his arrival in England, Sir Edward Belcher determined to present so valuable a desideratum to the Museum of the Royal College of Surgeons, and the animal being removed from the spirits, was replaced by myself in its own shell in the same manner whence it had been removed; and having been submitted to the examination, and received the entire acquiescence, of Sir Edward Belcher, was transmitted direct to Professor Owen.

At Vavao, an island of the Tonga archipelago, a fossil *Nautilus* was found in the limestone, but the specimens obtained are not such as to warrant any conclusion as to the species.

GASTEROPODA.

FAMILY—ALATÆ.

ROSTELLARIA, Lamarck.

2. ROSTELLARIA *fusus*.*Murex fusus*, Linn. Syst. Nat. ed. 10. p. 752.*Rostellaria rectirostris*, Lamk. Hist. Anim. v. 7. p. 192.

Inhab. Amboina; where it is still much prized in collections. Its actual locality is most probably the Island of Ceram.

The necessity for the change of name, though to be deplored, is pointed out by M. Deshayes in a note of the eighth volume of his edition of Lamarck; where also will be found a valuable, but not complete synonymy.

FAMILY—CONACEÆ.

CONUS. *Linnaeus*.

It is a very remarkable circumstance in the geographical distribution of this large genus, that no species appear to exist on a very considerable extent of the west coast of South America, and much of which is within the tropics. From our own experience it is only found here between the Bay of Magdalena, California, in 24° 38' north lat. and the Bay of Guayaquil in 2° 48' south lat. In California two species are met together, *Conus interruptus*, and *C. californicus* described below. The group of Cones, of which *C. interruptus* is typical, is strictly American; and the few kindred species are found in different situations within this range. This limitation excludes any representative of the genus from a portion of the coast where the temperature and climate do not appear in any way unfavourable to their presence. In the Pacific, Conus are met with as far south as any of the groups of islands, and *C. millepunctatus*, *C. pulicarius* and their congenerers may be regarded as characteristic of the West Pacific conchology. *Cypræa* has, perhaps, an identical southern range, as *C. exanthema* was alone seen by us so far south as the Island of Muerte in the Bay of Guayaquil.

3. CONUS *marchionatus*, Hinds, Ann. Nat. Hist. v. 11. p. 256, (Plate I. fig. 6, 7.) Testâ ecoronată, ordinatim conico-involutâ, albâ, rufo-fusco angulatè reticulatâ; spirâ depressâ, mucronatâ, canaliculatâ, spiraliter striatâ; aperturâ infernè paulisper effusâ, prope basin sulcatâ; epidermide diaphanâ lævi indutâ.

Inhab. Port Anna Maria, Nukuhiva, Marquesas. In from seven to ten fathoms, among sand.

Few specimens only of this species were obtained, but among them were some which were constantly of an uniform paler colour. It somewhat resembles *C. marmoreus*, and in some respects *C. nobilis*, to which it is, however, superior in symmetry, and from which it may very readily be distinguished by several characters.

4. *CONUS voluminalis*, (Plate I. fig. 8, 9.) Testâ ecoronatâ, conico-involutâ, supernè valdè angulatâ, albidâ, maculis rufis longitudinalibus interruptis ornatâ; spirâ plano-depressâ, persaltum conico-mucronatâ, striatâ, maculis spiraliter adscendentibus; epidermide subdiaphanâ, lineis vestitis approximatis; circâ basin sulcatâ.

Inhab. Straits of Malacca. In eleven fathoms, among mud.

5. *CONUS patricius*, Hinds, Ann. Nat. Hist. v. 11. p. 256, (Plate I. fig. 1, 2.) Testâ pyriformi, tumidâ; spira acuminatâ, minutè tuberculatâ vel coronatâ; aufractu ultimo striato, superne plicifero, infernè valdè contractato; aperturâ lineari; labro tenui, acuto; epidermide fulvâ lævi indutâ.

Inhab. Gulf of Nicoya. In seven fathoms, among sandy mud.

The spire is very elegantly and minutely coronated, and the angle of the last whorl is covered with small neat folds; below it is suddenly contracted, so as to impart a very correct pyriform shape.

6. *CONUS celebs*, Hinds, Ann. Nat. Hist. v. 11. p. 256.

Placing implicit reliance on Mr. Reeve, when he was engaged on his monograph of *Conus*, and being desirous of rendering it as complete as any information in my possession could make it, I was induced to describe this shell as a new species; and though its proportions and epidermis are somewhat striking, I fear it must be regarded as the young only of *Conus terebellum*.

7. *CONUS californicus*, (Plate I. fig. 3, 4, 5.) Testâ ecoronatâ, subfusiformi, involutâ, lævi, pallidâ vel ferrugineâ, lineis rufis regulariter indutâ, maculis parvis lacteis conspersâ; spirâ conicâ, elatâ; labro subarcuato, acuto; epidermide castaneâ velutinâ.

Inhab. Bay of Magdalena, California. In seven fathoms, on a sandy floor.

A somewhat small species, when clothed in its velvety epidermis reminding one strongly of a large filbert, and when this is removed displaying a pale iron-rust coloured surface, traversed at equal distances by numerous reddish lines, and with small milk-white spots occasionally scattered about in irregular clusters.

FAMILY—MURICACEÆ.

MUREX. *Linnæus*.

8. MUREX *Belcheri*. Hinds, Proceed. Zool. Soc. 1843, p. 127, (Plate II. fig. 1, 2, 3.) Testâ magnâ, fusiformi, crassâ, ponderosâ, pallidè fuscâ, multivaricosâ; anfractibus quadratis, albo fasciatis; varicibus numerosis, foliaciis, simplicibus, supernè elongatis, fornicatis, ætate valdè erosis; aperturâ quadratâ, pallidè carneâ; labro intùs lævi, infernè dente magno, crasso, obtuso; canali tortuoso, aperto, ad sinistram inclinato; umbilico præcipuè magno.

Inhab. San Diego, California. From a bank of mud near the head of the harbour.

9. MUREX *centrifuga*, Hinds, l. c. p. 126, (Plate III. fig. 7, 8.) Testâ gracillimè fusiformi, pallidè corneâ, passim creberrimè striatâ; varicibus tribus, subalatis, in spinis compressis laciniatis; spinâ ad angulum anfractuum elongatâ, subrectâ; interstitiis nodo unico; aperturâ elongatâ, ovali; labro intùs lævi; canali mediocri, rectiusculo, clauso, ad basin subrecurvo.

Inhab. West coast of Veragua. On a sandy floor, in fifty-two fathoms.

This species has the general character of *M. pinniger* and *M. capensis*, and is very closely allied to the latter.

10. MUREX *californicus*, Hinds, l. c. p. 128, (Plate III. fig. 9, 10.) Testâ fusiformi, fulvâ, trivaricosâ; anfractibus senis, supernè planulatis, transversim costatis, costis rotundatis, subdistantibus, ad lacinias varicum incurrentibus, intervallis costellatis, creniferis; varicibus sex-laciniatis, supremâ maximâ alatâ, deinde gradatim minoribus, creniferis; aperturâ ovali, lævi; canali clauso, recurvo, ad basin purpurascente.

Inhab. California.

The individual figured is in the collection of Mr. Cuming.

11. MUREX *hamatus*, Hinds, l. c. p. 128, (Plate III. fig. 11, 12.) Testâ rhomboideâ, pallidè luteâ, multivaricosâ; anfractibus septenis, inter varices areis quadratis; spirâ subelongatâ, acutâ; varicibus senis alatis, laciniis uncinatis; aperturâ ovali, infernè dente parvo acuto; canali clauso, rectiusculo.

Inhab. Bay of Guayaquil. From a muddy floor, in twenty-one fathoms.

This shell, together with *M. emarginatus*, *M. monoceros*, and *M. Nuttali*, belong to a section of the genus which has been called by Conrad *Cerastoma*. But if the marginal tooth of the aperture is to be regarded as sufficient grounds for separation, then I fear we must draw freely on some of the typical species, where its existence seems to have been little heeded. Mr. Swainson assigns it as a character of his subgenus *Muricanthus* or *Centronotus*; but for the above reasons it ceases to possess any importance. In *M. hamatus* the situation of the tooth on the dorsal varices is marked by a small sharp notch.

12. *MUREX festivus*, Hinds, l. c. p. 127, (Plate III. fig. 13, 14.) Testâ fusiformi, crassâ, fulvâ, trivaricosâ; varicibus simplicibus, recurvis, supernè cristatis, subtilissimè creniferis; interstitiis nodulosis, lineis subgeminis transversis fuscis eleganter ornatis; aperturâ ovali; labro intùs sparsim denticulato; canali valdè clauso, ad basin subrecurvo.

Inhab. Bay of Magdalena, California. Dredged from seven fathoms, on a sandy floor.

13. *MUREX foveolatus*, Hinds, l. c. p. 127, (Plate III. fig. 15, 16.) Testâ fusiformi, crassâ, multivaricosâ, transversim creberrimè sulcatâ, laminis minimis longitudinalibus foveolatâ, atro-purpureo pallidè bifasciatâ; varicibus septenis simplicibus, posticè rotundatis, anticè margine acutâ; aperturâ ovali, coarctatâ; labro intùs obtusè denticulato; labio interno producto; canali aperto, subrecurvo.

Inhab. Bay of Magdalena, California; with the preceding.

14. *MUREX cirrosus*, Hinds, l. c. p. 128, (Plate III. fig. 17, 18.) Testâ fusiformi, ventricosâ, pallidè carneâ, formosissimè multivaricosâ; suturâ profundâ, propè nigricante; varicibus nonis sexfariam laciniatis; laciniis fistulosis, albis, respectantibus, gradatim minoribus; interstitiis costis rotundatis lacinias incurrentibus; aperturâ ovali; labro intùs lævi; canali gracili, recurvo, ferè clauso, dorso bifariam laciniato, serie superiore geminâ.

Inhab. Straits of Macassar. In fifteen fathoms, among sand and fine gravel.

An uncommonly beautiful species, both from the delicacy of its colour and the rich, varied, and elaborate character of its sculpture.

15. *MUREX gravidus*, Hinds, l. c. p. 128, (Plate III. fig. 19, 20.) Testâ globosè fusiformi, multivaricosâ; anfractibus senis rotundatis, transversim costatis, supernè fusco fasciatis; costulis approximatis, lamellosis; varicibus quinis costulis subdivergentibus transitis, posticè foveolatis; aperturâ ovali, productâ; labro intùs lævi; canali longiusculo, aperto, ad sinistram inclinato.

Inhab. Cape Blanco, west coast of Africa. From sixty fathoms.

16. *MUREX radicans*, Hinds, l. c. p. 128, (Plate III. fig. 21, 22.) Testâ fusiformi, pallidè lutescente, multivaricosâ; varicibus quinis, laciniatis, anticè abruptis; laciniis compressis, subquadratis, mediò lineâ duplicatis, posticè medio interstitiorum exsiliens; aperturâ ovali, productâ; labro intùs lævi; canali ferè clauso, ad basin subrecurvo.

Inhab. San Blas, west coast of Mexico. From eleven fathoms, among mud.

In this species, the laciniæ of the varix take root near the centre of the interspace, whence they proceed directly forwards. They are of a squarish, compressed shape, and are partially divided in their middle by an impressed line.

17. *MUREX peritus*, Hinds, l. c. p. 129, (Plate III. fig. 23, 24.) Testâ subrhomboideâ, albidâ, multivaricosâ; anfractibus septenis, supernè angulatis et fuscis, ultimo elongato in canalem attenuato,

transversim striatis; varicibus senis tenuibus, laciniatis, anticè inter lacinias seriebus duabus eleganter crenatis; laciniis acuminatis, uncinatis, gradatim minoribus; aperturâ obovatâ; canali aperto, ad basin subrecurvo.

Inhab. Bay of Magdalena, California. From seven fathoms, on a sandy floor.

TYPHIS. *Montfort.*

18. *TYPHIS quadratus*, Hinds, Proceed. Zool. Soc. 1843, p. 18, (Plate III. fig. 3, 4.) Testâ subquadratâ, fuscâ vel albidâ, lineis pallidis transversis; quadrifariam varicosâ; varicibus crassis, acutis, ad spiram commixtis, supernè nodulosis, in spinis appressis desinentibus; tubulis subrectis vel deorsum inclinatis; canali mediocri laterali.

Inhab. Gulf of Nicoya and the Bay of Guayaquil. Dredged from a muddy bottom, in from seven to eighteen fathoms.

Allied to *Typhis Sowerbii*, but distinguished from it by its squarish shape, thick and nodulous varices, closely appressed spines, and the decided lateral direction of the canal.

19. *TYPHIS arcuatus*, Hinds, l. c. p. 19, (Plate III. fig. 1, 2.) Testâ corneâ, fusiformi; quadrifariam varicosâ; varicibus arcuatis, inermibus, ad spiram benè distinctis, supernè in tubulis desinentibus; tubulis complanatis, ascendentibus; canali mediocri recurvo.

Inhab. Cape of Good Hope. Dredged on the L'Agulhas bank in from forty to fifty-four fathoms.

Shell fusiform, of a horn-colour; the varices arcuate, terminating in the tube, and ascending the spire even to the apex, giving it a pyramidal shape. The character of the bowed spineless varices is peculiar, and altogether it is a very distinct species.

20. *TYPHIS nitens*, Hinds, l. c. p. 19, (Plate III. fig. 5, 6.) Testâ ovali, albidâ, lævigatâ, nitidâ; quadrifariam varicosâ; varicibus acutis in spinis excentricis desinentibus; tubulis rectis; canali brevi recurvo.

Inhab. Straits of Macassar, Indian Archipelago. Dredged from among gravel and coral in eighteen fathoms.

Looking from the apex, the spines and tubes will be seen to be disposed in an elegant spiral manner about the spire. It is the first species, as far I am acquainted, that has hitherto been found in the Indian seas, and is at the same time the smallest yet recorded.

21. *TYPHIS Belcheri*, Broderip, Proceed. Zool. Soc. 1832, p. 178.

Murex Cleryi, Petit. Revue, Zool. 1840, p. 327.

Inhab. Cape Blanco, west coast of Africa.

A specimen of *Murex Cleryi* from Paris has enabled me to compare it with *Typhis Belcheri*, and to coincide in the opinion, previously gathered from the descriptions and figures, that they are the same species.

TRITON. *Montfort.*

22. TRITON *vestitus*, Hinds, Proceed. Zool. Soc. Feb. 27, 1844, (Plate IV. fig. 1, 2.) Testâ ovatâ, solidâ, fuscâ; anfractibus rotundatis, transversim striatis, lineis longitudinalibus decussantibus præcipuè spiræ, nodulosis, ultimo albo fasciato; aperturâ elongatè ovali; labro incrassato; intus dentibus geminis albis, undique purpurascens; columellâ purpurascens vel nigrâ plicis albis varicosâ; fauce albâ, epidermide valdè lamellosâ, pilis nigris numerosis indutâ.

Inhab. Realejo, Gulf of Nicoya, and Bay of Honda, on the west coast of America, among the rocks of the shore.

23. TRITON *convolutus*, Broderip, Proceed. Zool. Soc. 1833, p. 7.

Inhab. Marquesas, in from seven to ten fathoms, sandy mud. New Guinea, in twenty-two fathoms, among soft mud.

I am happy to be enabled to rescue this species from the oblivion into which it was fast gliding. It is not uncommon in collections, where it seems to be regarded as hitherto undescribed. When it came under my notice, I felt much doubt on the subject, and Mr. Broderip has favoured me with his opinion that it is properly referred as above.

24. TRITON *bracteatus*, Hinds, l. c. (Plate IV. fig. 5, 6.) Testâ ovatâ, elongatâ, longitrorsum costatâ, transversim striatâ, maculis parvis nigris seriatim dispositis ornatâ; spirâ aperturam superante; aperturâ parvâ, albâ, denticulatâ; canali breviusculo.

Inhab. Marquesas, in from seven to ten fathoms, among sandy mud. New Ireland, among the coarse sand of the beach. Straits of Malacca, in seventeen fathoms, mud.

The numerous little black spots with which the surface of this shell is ornamented, are disposed in a very regular manner, and longitudinally obey the direction of the ribs, and transversely present an interrupted fasciation.

25. TRITON *truncatus*, Hinds, l. c. (Plate IV. fig. 9, 10.) Testâ solidâ, fulvâ, fusco nebulosâ, truncatâ, longitrorsum costatâ, striis decussantibus; costis rotundatis confertis; anfractu ultimo pallidè fasciato; aperturâ albâ, denticulatâ; canali breviusculo.

Inhab. New Ireland. In society with *T. bracteatus*.

The three specimens alone collected are truncated in an uniform and appa-

rently constant manner before the antepenult whorl, leaving each to consist of about three entire whorls.

26. *TRITON antiquatus*, Hinds, l. c. (Plate IV. fig. 7, 8.) Testâ elongatâ, turrîtâ, subcylindraceâ, lineis decussantibus textili, prope suturam costis evanidis; spirâ aperturam duplò vel triplò superante; apice eroso; aperturâ parvâ, subquadratâ, pallidâ; labio interno anticè valdè producto.

Inhab. New Ireland. Among the coarse sand at low-water.

27. *TRITON fictilis*, Hinds, l. c. (Plate IV. fig. 11, 12.) Testâ ovatâ, solidulâ, cinereâ; anfractibus senis rotundatis, longitrorsum obliquè plico-costatis, transversim tenuiter striatis; spirâ aperturam vix superante; aperturâ callosâ, contractatâ, politâ, intùs lævigatâ.

Inhab. Cape of Good Hope. Dredged on the L'Agulhas bank, in between fifty and sixty fathoms.

28. *TRITON anomalus*, Hinds, l. c. (Plate IV. fig. 13, 14.) Testâ ovatâ, fuscâ, longitrorsum costatâ, evaricosâ, lineis transversis elevatis cancellatâ; spirâ aperturam æquante; suturâ validâ; aperturâ ovali, pallidâ; canali breviusculo.

Inhab. Island of Quibo, Veragua. On the sandy shore at low-water.

This little shell presents no appearance of a varix, but the character of the mouth and outer lip, and the general contour is such, that it unquestionably is fittest placed here. Indeed, its appearance is very similar to that of the preceding.

29. *TRITON lignarius*, Broderip, Proceed. Zool. Soc. 1833, p. 5. (Plate IV. fig. 15, 16.)

Inhab. Monte Christi, west coast of America. In seven fathoms, sandy mud.

This is a very interesting species, and as it is not frequent in collections, figures have been given. It seems liable to considerable variation in the number and relation of its varices.

RANELLA. *Lamarck.*

30. *RANELLA californica*, Hinds, Ann. Nat. Hist. v. 11, p. 255, (Plate II. fig. 4, 5.) Testâ ovatâ, ventricosâ; anfractibus uniseriatim tuberculatis, transversim granoso-striatis; tuberculis conicis subdistantibus; varicibus magnis cavernosis; anfractu ultimo multiseriatim obsoletè tuberculato, fasciis duabus angustis purpureis cincto; aperturâ albâ; labio externo crenato et dentato, interno transversim striato.

Inhab. San Diego, California.

Not unlike the American tropical species, *R. ventricosa*. This is, however, a larger and heavier shell, is without any disposition to tuberculation in the vicinity of the suture, the varices are much bolder and cavernous, the tubercles on

the spire fewer and larger, and the pillar lip is covered with many small transverse ridges.

31. *RANELLA pectinata*, (Plate IV. fig. 17, 18.) Testâ fusiformi, politâ, cinereâ; varicibus obliquis, spinis acutis muricatis; anfractibus lineis transversis elevatis instructis, inter varices tri-vel quadrifariam tuberculatis; aperturâ ovali, albidâ; labro intus obsoletè denticulato; labio interno lævi, producto; canali elongato, recto.

Inhab. San Blas, Mexico. In seven fathoms, among mud.

FAMILY—FUSACEÆ.

FUSUS. *Lamarck*.

32. *FUSUS clausicaudatus*, (Plate I. fig. 10, 11.) Testâ fuscâ, solidâ; spirâ costatâ; costis brevibus rotundatis; anfractu ultimo et penultimo ecostato; lineis transversis ordinatim exaratâ; aperturâ parvâ, obliquè ovali, coarctatâ, supernè callositate; canali subrecurso, ferè clauso.

Inhab. L'Agulhas Bank, Cape of Good Hope. From a depth between fifty and sixty fathoms, on a gravelly floor.

The whorls of the spire are ribbed rather strongly, but the two last are entirely without this character. The shell is particularly solid in its structure, and is covered by regularly disposed impressed lines. The labrum is thickened by the re-appearance of a rib, and which extends to nearly midway along the canal.

CYRTULUS. *Hinds*.

Cyrtulus, Hinds, Ann. Nat. Hist. v. 11. p. 256.

Testa fusiformis; anfractus ultimus et penultimus turbinatus; spira per saltum ascendens; apertura linearis in canali brevi effuso desinens; columella valdè arcuata, supernè callosa; labrum acutum; umbilicus parvus; epidermis lævis.

33. *CYRTULUS serotinus*, Hinds, l. c. p. 257, (Plate I. fig. 12, 13.)

Inhab. Port Anna Maria, Nukuhiva, Marquesas. In nine fathoms, among sand.

This remarkable shell is not conveniently associated with any previously established group. It perhaps most nearly approaches *Pyrula melongena*, *P. patula*, and their allies, which we now find to have been so erroneously placed in *Pyrula*, and which must in future be removed to this family under a new generic

head. In placing the present shell here we are only anticipating this necessary change. Several peculiarities will be found in this shell; it is solid and heavy, somewhat fusiform, and of an uniform cream colour; the two last whorls turbate and on the same plane, whence the spire, consisting of about nine whorls, suddenly ascends; the last whorl smooth, squarish, at about its inferior third suddenly contracted, those of the spire with nodulous ribs grooved transversely; aperture elongated, slightly flesh coloured, below attenuated into a canal; outer lip thin, sharp, and perfectly smooth within; no distinct inner lip; columella about its centre remarkably curved, above with a large squarish callosity, below also slightly callous where it partially covers a small umbilicus, quite smooth everywhere; and with a few fragments still adhering of a thin horny epidermis.

TROPHON. *Montfort.*

Trophon, Montfort, 1810. *Muricidea*, Swainson, 1840.

34. *TROPHON fimbriatus*, (Plate I. fig. 18, 19.) Testâ fusoidê, pallidâ; anfractibus angulatis, costatis, lamellis erectis frequentibus muricatis; aperturâ ovatâ lacteâ; canali recurvo.

Inhab. Straits of Macassar. In eleven fathoms, among sand and gravel.

Shell solid and fusiform, the upper whorls crossed by two rounded ribs, the last by several gradually decreasing in size from the upper to the lowest; these latter crossed vertically by numerous rigid sharp erect lamellæ, which are given off from the surface of the ribs, carried across the interspaces, and confluent with each other. The aperture is polished and smooth, but somewhat distant sulci exist on the outer lip corresponding with the exterior ribs. The canal is bent backwards, and a little to one side.

35. *TROPHON gyratus*, (Plate I. fig. 14, 15.) Testâ fusiformi, albidâ; anfractibus propè mediam unicarinatis; carinâ crenatâ; undique costulis parvis numerosis eleganter creniferis vestitâ; canali subrecurvo.

Inhab. Straits of Macassar. In seventeen fathoms, coarse sand.

Besides the principal keel, the whole shell is covered by small ribs sculptured with the most delicate crenulations.

36. *TROPHON muricatus*, (Plate I. fig. 16, 17.) Testâ fusiformi; anfractibus uniseriatim spinis compressis muricatis, ultimo serie alterâ minore; labio interno subproducto; canali ad dextram inclinato.

Inhab. Panama. In nineteen fathoms, among mud.

Equally characteristic with the preceding, from its spiral series of trans-

versely flattened spines. A second smaller series adorns the last whorl, and beneath this are two or three small ribs. The only specimen obtained is dead, and with no other colour than what it has acquired by lying in the mud without its animal.

FAMILY—PLEUROTOMACEÆ.

PLEUROTOMA. *Lamarck.*

37. *PLEUROTOMA nobilis*, Hinds, Proceed. Zool. Soc. 1843, p. 37, (Plate V. fig. 1, 2.) Testâ fusiformi, solidâ, rugosâ; anfractibus supernè concavis, leviter striatis, propè mediam carinâ maximâ, infernè, præcipuè ultimo, carinis parvis alternantibus; suturâ simplici; labio externo subintegro, interno infernè paululùm producto; epidermide pallidè fuscâ indutâ.

Inhab. San Blas, Mexico. From seven fathoms, among mud.

This is a very considerably larger shell than *P. oxytropis*, but in the character of the sculpture they closely approach each other. It is chiefly distinguishable from it in the absence of any keel between the principal keel and the suture, and in some minor characters.

38. *PLEUROTOMA jubata*, Hinds, l. c. p. 37, (Plate V. fig. 3.) Testâ fusiformi, acuminatâ, lævigatâ, fulvâ; anfractibus medio carinatis, supernè granulis uniseriatim cinctis, infernè carinâ parvâ unicâ, sed ultimo pluribus; suturâ carinatâ; canali breviusculo.

Inhab. The China Sea and north coast of Sumatra. Dredged from a muddy bottom in eighteen fathoms.

A solid horn-coloured shell, the principal keel sharp, and slightly paler, with a secondary keel above, interruptedly transversely granular; the suture is also keeled. Aperture with the canal shorter than the spire; inner lip produced.

39. *PLEUROTOMA gemmata*, Hinds, l. c. p. 37. (Plate V. fig. 4.) Testâ fusiformi, elongatâ, gracillimâ, fuscâ; anfractibus numerosis, mediò uniseriatim tuberculato-carinatis; tuberculis rectis, subquadratis, albidis; carinis duabus, parvis, suturam comitantibus, anfractu ultimo multicarinatis; sinu laterali ponè carinam; aperturâ ovali; canali elongato.

Inhab. Gulf of Magdalena, California. Obtained from seven fathoms, among sandy mud.

Elegantly fusiform, with a prominent principal keel composed of squarish tuberculations.

40. *PLEUROTOMA stolidâ*, Hinds, l. c. p. 37, (Plate V. fig. 5.) Testâ fusiformi, lævigatâ, corneâ; anfractibus supernè planulatis, infernè costatis; costulis albidis, brevibus, obliquis, in anfractu ultimo evanidis; apice papillari; suturâ simplici; canali brevi; labio externo tenui.

Inhab. L'Agulhas Bank, Cape of Good Hope. Dredged from a depth of forty-three fathoms.

An interval is left between the ribs and the suture, which is smooth and contracted.

41. *PLEUROTOMA gravis*, Hinds, l. c. p. 37, (Plate V. fig. 6.) Testâ fusiformi, lævigatâ, corneâ; anfractibus propè suturam angulatis, uniseriatim tuberculis parvis albidis cinctis, supernè latè planulatis; anfractu ultimo coarctato; apice papillari; suturâ simplici, ferè occultâ; canali brevi; aperturâ fuscâ.

Inhab. L'Agulhas Bank, Cape of Good Hope; in company with the preceding.

42. *PLEUROTOMA inermis*, Hinds, l. c. p. 37, (Plate V. fig. 7.) Testâ ovatâ, acuminatâ, inermi; anfractibus subrotundatis, flammeis undosis fuscis longitudinaliter ornatis, transversim striatis; suturâ simplici; aperturâ ovali; canali brevi.

Inhab. Bay of Magdalena, California. From seven fathoms, sandy mud.

43. *PLEUROTOMA violacea*, Hinds, l. c. p. 38, (Plate V. fig. 8.) Testâ elongatâ, acuminatâ, violaceâ; anfractibus decenis multicarinatis, longitudinaliter minutissimè et creberrimè striatis; carinis duabus eminentioribus; labro tenui, acuto, crenulato; sinu laterali inter carinas; aperturâ ovali; columellâ biplicatâ; canali brevi.

Inhab. North coast of New Guinea and Straits of Macassar. From seven to twenty-two fathoms, sandy mud.

The folds on the columella, for which this species is remarkable, are not to be met with in all the specimens.

44. *PLEUROTOMA radula*, Hinds, l. c. p. 38, (Plate V. fig. 9.) Testâ pyramidalis, acuminatâ, corneâ; anfractibus nonis, lineis decussatis, uniseriatim tuberculatis; tuberculis sublunatis; labro tenui, acuto; sinu laterali ponè seriem tuberculorum; suturâ lineâ elevatâ instructâ; aperturâ ovali; canali brevi.

Inhab. Straits of Malacca. In seventeen fathoms, mud.

The last whorl is elegantly granular both in the longitudinal and transverse direction.

CLAVATULA. *Lamarck.*

45. *CLAVATULA militaris*, Hinds, Proceed. Zool. Soc. 1843, p. 38, (Plate V. fig. 10.) Testâ turritâ, elongatâ, acuminatâ, albidâ; anfractibus supernè concavis et angulatis, plicis numerosis longitudinalibus, granosis, lineis decussatis; propè suturam carinâ subnodosâ instructâ; labro intùs lævi; aperturâ lineari, in canali brevi recurvo desinente.

Inhab. Veragua, Central America; in eighteen fathoms. Panama; in from eight to thirty fathoms, mud.

46. *CLAVATULA sinensis*, Hinds, l. c. p. 38, (Plate V. fig. 11.) Testâ fusiformi, acuminatâ, corneâ; anfractibus undenis, subplanulatis, mediò costulatis, lineis fuscis decussatis; suturâ granoso-carinatâ; labro intùs lævi; aperturâ ovali; canali mediocri.

Inhab. New Guinea; Straits of Macassar; China Sea. In from five to twenty-one fathoms, mud.

47. *CLAVATULA robusta*, Hinds, l. c. p. 39, (Plate V. fig. 12.) Testâ fusiformi, acuminatâ, albidâ; anfractibus undenis, lævigatis, angulatè costulatis, lineis elevatis decussatis; costulis propè mediam angulatis; suturâ simplici; labro crenato, intùs lævi; aperturâ ovali; canali mediocri.

Inhab. Hong-Kong, China. In from four to seven fathoms, sandy mud.

48. *CLAVATULA spicata*, Hinds, l. c. p. 39, (Plate V. fig. 13.) Testâ fusiformi, albidâ; anfractibus octonis, costulatis, transversim striatis; costulis subacutis; suturâ granulosâ; labro intùs lævi, aperturâ lineari; canali brevi; anfractûs ultimi dorso fusco picto.

Inhab. Bow Island. Among the fine coral sand.

49. *CLAVATULA spurca*, Hinds, l. c. p. 39, (Plate V. fig. 14.) Testâ ovatâ, acuminatâ; anfractibus octonis, rotundatis, costulatis, lineis duabus vel tribus elevatis fuscis decussatis, minutissimè transversim striatis; suturâ simplici; labro juxtâ incrassato, intùs crenulato; aperturâ ovali; canali mediocri.

Inhab. New Guinea; Straits of Malacca. In from five to eighteen fathoms, mud.

50. *CLAVATULA ericea*, Hinds, l. c. p. 39, (Plate V. fig. 15.) Testâ fusiformi, acuminatâ, pallidâ, nitidâ; anfractibus octonis, rotundatis, costulatis; costulis granulosis lineis elevatis decussatis, suturam incurrentibus; interstitiis lævigatis; suturâ simplici; labro juxtâ incrassato, intùs lævi; aperturâ subovali; canali brevi.

Inhab. Magnetic Island, Coast of Veragua. From twenty-six fathoms, mud.

51. *CLAVATULA debilis*, Hinds, l. c. p. 39, (Plate V. fig. 16.) Testâ fusiformi, elongatâ, acuminatâ, gracili; anfractibus octonis, rotundatis, costulatis, transversim striatis; costulis parvis, rotundatis, approximatis, suturam incurrentibus; suturâ simplici; labro intùs crenulato; aperturâ obliquâ; sinu laterali propè suturam; canali mediocri.

Inhab. New Guinea; Straits of Macassar.

52. *CLAVATULA sculpta*, Hinds, l. c. p. 39, (Plate V. fig. 17.) Testâ fusiformi, elongatâ, acuminatâ; anfractibus decenis, rotundatis, costulatis, transversim striatis, fusco fasciatis; costulis rotundatis, propè suturam desinentibus; suturâ striis arcuatis instructâ; sinu laterali propè suturam, marginibus acutis; aperturâ ovali; canali mediocri.

Inhab. Panama. From seven fathoms, mud.

53. *CLAVATULA rava*, Hinds, l. c. p. 39, (Plate V. fig. 18.) Testâ ovatâ, acuminatâ; anfrac-

tibus octonis, rotundatis, costulatis, transversim striatis; costulis rotundatis, suturam incurrentibus; infrà suturam purpureo spiraliter fasciatâ, anfractu ultimo iteratâ; labro intùs crenulato; aperturâ ovali; canali brevi.

Inhab. Gulf of Nicoya, Central America. In eighteen fathoms, mud.

54. *CLAVATULA scalaris*, Hinds, l. c. p. 39, (Plate VI. fig. 2.) Testâ fusiformi, acuminatâ; anfractibus septenis, rotundatis, scalariformibus, transversim striatis; costulis rotundatis, distantibus, suturam incurrentibus; suturâ simplici; labro arcuato, intùs lævi; sinu laterali propè suturam; aperturâ ovali; canali brevi.

Inhab. Straits of Macassar. In twelve fathoms, coarse sand.

The ribs assume the character of the varices in *Scalaria*, as they are contracted, rounded, and so incurrent at the suture as almost to give the appearance of separating the whorls; the sinus is between the body of the last whorl and the thin smooth labrum.

55. *CLAVATULA cinerea*, Hinds, l. c. p. 40, (Plate VI. fig. 3.) Testâ ovatâ, acuminatâ, anfractibus septenis, longitudinaliter tuberculato-costatis, transversim striatis; costulis anfractûs ultimi furcatis; suturâ crenatâ; labro incrassato intùs et cum columellâ crenulato; aperturâ ovali, obliquâ; canali breviusculo.

Inhab. — ?

The ribs of the last whorl are forked nearly throughout, and the suture is covered by a close crenation.

56. *CLAVATULA argillacea*, Hinds, l. c. p. 40, (Plate VI. fig. 1.) Testâ ovatâ, acuminatâ, lævigatâ, corneâ; anfractibus septenis, tuberculato-costatis; costulis supernè angulatis, anfractûs ultimi evanidis; sinu laterali magno; labro incrassato intùs et cum columellâ crenulato; aperturâ ovali, elongatâ; canali breviusculo.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

57. *CLAVATULA rubida*, Hinds, l. c. p. 40, (Plate VI. fig. 6.) Testâ ovatâ, acuminatâ, rufâ, anfractibus septenis, rotundatis, costatis, transversim striatis; costis rotundatis, latis, suturam simplicem incurrentibus; labro subincurvo, intùs dentato; aperturâ ovali, oblongâ; sinu laterali propè suturam; canali brevi.

VAR. Nigro et albo fasciatâ.

Inhab. New Guinea. From seven fathoms, mud. The variety is from New Ireland, among coarse sand at low water.

A deeply coloured shell, varying from an uniform dark red to the variety banded with white and black on the last whorl, and with a black line over the suture.

58. *CLAVATULA luctuosa*, Hinds, l. c. p. 40, (Plate VI. fig. 4.) Testâ ovatâ, acuminatâ, nigricante, crassâ; anfractibus nonis, lævigatis, supernè subplanulatis, propè mediam uniseriatim tuber-

culatis; suturâ simplici; sinu laterali posticali; labro paululùm incrassato, intùs lævi; aperturâ fuscâ, ovali; canali brevi.

Inhab. Bay of Guayaquil; Gulf of Magdalena, California. In from five to twenty-two fathoms.

Fluctuating between dark chesnut and black, polished, the ribs scarcely more than narrow tubercles, and the suture very slightly impressed. Inner lip produced.

59. *CLAVATULA aspera*, Hinds, l. c. p. 40, (Plate VI. fig. 7, 8.) Testâ subclavatâ acuminatâ, fuscâ vel nigricante; anfractibus septenis, rotundatis, costulatis, lineis elevatis decussatis; suturâ lineâ elevatâ instructâ; labro paululùm incrassato, intùs lævi; aperturâ fuscâ, ovali; canali brevi.

Inhab. Guayaquil. In five fathoms, mud.

60. *CLAVATULA quisqualis*, Hinds, l. c. p. 44, (Plate VI. fig. 5.) Testâ fusiformi, acuminatâ, nitidissimâ; anfractibus octonis, supernè lævigatis, infernè costulatis; costulis brevibus, obliquis, acutis; lineis albis sinuosis longitudinaliter instructis; aperturâ ovatâ; sinu laterali rotundo; labro tenui, acuto, intùs lævi; columellâ marginatâ; canali brevi, effuso, recurvo.

Inhab. Gulf of Papagayo, Central America. From eight to fourteen fathoms, mud.

61. *CLAVATULA plumbea*, Hinds, l. c. p. 41, (Plate VI. fig. 9.) Testâ fusiformi, attenuatâ, lævigatâ, pallidâ, fusco fasciatâ; anfractibus septenis, subrotundatis, costulatis; costulis rotundatis, numerosis, suturam simplicem incurrentibus; anfractu ultimo fasciis duabus cincto; labro intùs lævi; aperturâ ovali.

Inhab. Bay of Magdalena, California. From five fathoms.

62. *CLAVATULA occata*, Hinds, l. c. p. 41, (Plate VI. fig. 10.) Testâ fusiformi, attenuatâ, gracili, corneâ, angulatè costatâ; anfractibus septenis, transversim exaratis; suturâ simplici; aperturâ angustâ lineari; canali mediocri.

Inhab. Magnetic Island, west coast of Veragua.

Slender and attenuated, angular from the ribs being continuous, and transversely ploughed. The aperture is contracted, linear, and a little oblique.

63. *CLAVATULA bella*, Hinds, l. c. p. 41, (Plate VI. fig. 13.) Testâ fusiformi, attenuatâ, gracili, lævigatâ, pallidè fuscâ; anfractibus octonis, rotundatis, costulatis, lineis albidis elevatis decussatis, supernè fusco fasciatis, ultimo attenuato; costulis gracilibus, granulis parvis sparsis instructis, suturam simplicem incurrentibus; labro intùs lævi; aperturâ ovali, in canali brevi attenuatâ.

Inhab. West coast of Veragua; from thirty fathoms, mud. Gulf of Papagayo, Central America; from eight to fourteen fathoms, mud.

A graceful species, ornamented with transverse brown bands, and pale lines.

The apex is somewhat papillary. Within the inner lip, near the sinus, a small tooth will be found in the adult specimens.

64. *CLAVATULA pudica*, Hinds, l. c. p. 41, (Plate VI. fig. 11, 12.) Testâ fusiformi, acuminatâ, nitidissimâ; anfractibus nonis, albidis, propè suturam paululùm lævigatis, infernè tuberculato-costulatis; costulis obliquis, acutis; suturâ simplici; anfractu ultimo anticè costulis acutis obliquis instructo, posticè lævigato, maculo amplo fusco picto; sinu laterali profundo; labro acuto, intùs lævi; aperturâ ovali; canali mediocri, effuso.

Inhab. Gulf of Papagayo, Central America. From eight to fourteen fathoms, mud.

A pretty glittering shell, the last whorl being remarkably smooth and rounded, and clouded at the back of a reddish chesnut colour.

65. *CLAVATULA neglecta*, Hinds, l. c. p. 45, (Plate VI. fig. 14.) Testâ fusiformi, gracili, fuscâ; anfractibus nonis, costulatis, lineis elevatis decussatis; costulis brevibus, rotundatis; suturâ lineâ elevatâ instructâ, infrâ propè lævigatâ; aperturâ ovatâ, obliquâ; sinu laterali ponè suturam; labro incrassato, inflexo; canali mediocri.

Inhab. Gulf of Nicoya, Central America. Under stones at low-water.

66. *CLAVATULA læta*, Hinds, l. c. p. 41, (Plate VI. fig. 15, 16.) Testâ subclavatâ, acuminatâ, nitidissimâ; anfractibus nonis, supernè planulatis, mediò uniseriatim tuberculatis, ultimâ serie secundâ parvâ; tuberculis distinctis, erectis, acutis; suturâ simplici; labro acuto, intùs lævi; aperturâ ovali; canali brevi, effuso.

Inhab. New Guinea; Straits of Macassar. From seven to ten fathoms.

The tubercles are remarkably sharp, and look upwards. A faint dotting of pale yellow accompanies the suture, at the base of the tubercles, and occupies the middle of the last whorl.

67. *CLAVATULA nitens*, Hinds, l. c. p. 41, (Plate VI. fig. 17.) Testâ clavatâ, subexcentricâ, fuscâ, nitidissimâ; anfractibus octonis, subangulatè costulatis, propè mediam prominentibus; costulis obliquis, acutis, suturam simplicem incurrentibus; labro acuto, intùs lævi; aperturâ latè ovali; canali brevi.

Inhab. New Guinea; Straits of Macassar and Malacca. From seven to twenty-two fathoms.

68. *CLAVATULA candida*, Hinds, l. c. p. 42, (Plate VI. fig. 18.) Testâ fusiformi, acuminatâ, candidâ; anfractibus septenis, costulatis, supernè subangulatis; suturâ simplici; aperturâ ovali; sinu laterali supernè valdè calloso; faucibus crenulatis; anfractûs ultimi basi transversim striato.

Inhab. Magnetic Island, coast of Veragua.

69. *CLAVATULA pyramis*, Hinds, l. c. p. 42, (Plate VI. fig. 19.) Testâ clavatâ, angulatè costatâ, hexagonâ, transversim creberrimè striatâ; sinu laterali superficiali; aperturâ brevi, sublineari; canali brevi.

Inhab. Straits of Macassar.

Angular, elongatedly pyramidal, with transverse fine closely-set striæ; the mouth small and contracted, with a short blunt canal.

70. *CLAVATULA merita*, Hinds, l. c. p. 42, (Plate VI. fig. 20.) Testâ ovatâ, turritâ, acuminatâ, lævigatâ, pallidâ; anfractibus senis, plico-costulatis, supernè angulatis et lineâ fuscâ spiraliter cinctis; suturâ simplici; anfractûs ultimi dorso fusco nebuloso, transversim striato; labro acuto, intûs lævi; aperturâ oblongâ; canali subnullo.

Inhab. Gulf of Nicoya, Central America. Under stones at low-water.

Semi-opaque, smooth, with longitudinal ribs, decorated at the angle of the whorl by a reddish line, a little more pronounced near the ribs.

71. *CLAVATULA flammea*, Hinds, l. c. p. 42, (Plate VI. fig. 21.) Testâ clavatâ, albidâ; anfractibus octonis, rotundatis, transversim striatis, flammulis fuscis, supernè angulatis, infernè subrectis, ornatis; spirâ ecostulatâ; suturâ simplici: sinu laterali modò emarginaturâ; labro obtuso, lævissimè crenulato, intûs lævi; aperturâ ad basin dilatâ; canali brevi, lato, recurvo.

Inhab. New Ireland. Among coarse sand at low water.

72. *CLAVATULA polita*, Hinds, l. c. p. 43, (Plate VI. fig. 22.) Testâ valdè fusiformi, politâ, albidâ, septangulatè costulatâ; costulis confluentibus; suturâ simplici; aperturâ ovali, oblongâ; labro acuto, intûs lævi; canali longo, subrecurvo.

Inhab. Straits of Macassar. Found among coarse sand in seven fathoms.

Milk-white, especially fusiform, ribs rounded and continuous throughout, the last whorl gradually attenuated into the canal.

73. *CLAVATULA impressa*, Hinds, l. c. p. 44, (Plate VI. fig. 23, 24.) Testâ fusiformi, acuminatâ, roseâ; anfractibus nonis, tuberculato-costatis, transversim striatis; costulis acutis, obliquis, albidis; anfractûs ultimi dorso picto, ecostulato; aperturâ ovali; labro tenui, acuto, intûs lævi; canali mediocri.

Inhab. Gulf of Papagayo, Central America. From eight to fourteen fathoms, mud.

Flesh-coloured, ribs tubercular, oblique, the interspaces very finely striated, outer lip somewhat expanded, thin; aperture oval, gradually terminating in a slightly recurved canal.

74. *CLAVATULA Maravignæ*.

Pleurotoma Maravignæ, Bivona.

Clavatula crebricostata, Hinds, Proceed. Zool. Soc. 1843, p. 41.

Pleurotoma incisa, Reeve, Conch. Icon., 1843.

Inhab. Cape Blanco, west coast of Africa. In seventeen fathoms.

75. *CLAVATULA amabilis*, Hinds, l. c. p. 40, (Plate VII. fig. 3.) Testâ ovatâ, turritâ, pallidè aurantiacâ; anfractibus septenis, subrotundatis, costulatis, transversim striatis; costulis rotundatis,

subdistantibus; suturâ maculis albis ornatâ; anfractu ultimo fasciâ albâ angustâ cincto; sinu laterali ponè suturam; aperturâ ovali; canali mediocri.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

76. *CLAVATULA felina*, Hinds, l. c. p. 42, (Plate VII. fig. 4.) Testâ ovatâ, acuminatâ; anfractibus senis, subrotundatis, granulosi lineis transversis et longitudinalibus decussatis, maculis rufis quadratis et oblongis eleganter ornatis; suturâ simplici; labro crenulato, subrecto; aperturâ oblongâ; canali brevi.

Inhab. New Ireland. Among coarse sand at low water.

A pretty small scabrous species, with elongated, somewhat irregular, reddish brown spots.

77. *CLAVATULA pardalis*, Hinds, l. c. p. 42, (Plate VII. fig. 1.) Testâ ovatâ, lævigatâ, nigricante; costulis fulvis apice ad basin decurrentibus; interstitiis striatis; aperturâ oblongâ; labro intus crenulato; canali brevi.

Inhab. Gulf of Nicoya. Under stones at low water.

A dark olive, retuse, ribbed shell, which latter are disposed in a very similar manner to those on the fruit of some *Umbelliferæ*.

78. *CLAVATULA cœlata*, Hinds, l. c. p. 42, (Plate VII. fig. 6.) Testâ ovatâ, elongatâ, atrofusâ; anfractibus octonis, rotundatis, costulatis; costulis obliquis, acutis; suturâ lineâ elevatâ instructâ; aperturâ atrâ, ovali; labro intus lævi; canali brevi.

Inhab. Gulf of Fonseca. From twenty fathoms, mud.

79. *CLAVATULA papillaris*, Hinds, l. c. p. 42, (Plate VII. fig. 2.) Testâ oblongâ, lævigatâ, pallidâ; anfractibus quinis, rotundatis, obsolete tuberculato-costulatis; apice papillosâ; suturâ simplici; aperturâ brevi, ovatâ; labro intus lævi; canali subnullo.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

80. *CLAVATULA rubiginosa*, Hinds, l. c. p. 43, (Plate VII. fig. 5.) Testâ oblongâ, corneâ; anfractibus senis, subrotundatis, transversim striatis; suturâ simplici; aperturâ brevi, ovatâ, corneâ; labro intus lævi; canali subnullo.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

81. *CLAVATULA fimbriata*, Hinds, l. c. p. 43, (Plate VII. fig. 9.) Testâ ovatâ, pallidè rufâ, albo fasciatâ; anfractibus quinis, rotundatis, laminis brevibus, numerosis, dentatis, reflexis indutis; suturâ simplici; aperturâ ovali; sinu laterali minimo; labro crenulato, reflexo; canali brevi.

Inhab. North coast of New Guinea. From twenty-two fathoms, mud.

The sculpture consists of numerous longitudinal laminae; colour of a delicate pale reddish brown, banded on the last whorl with white.

82. *CLAVATULA donata*, Hinds, l. c. p. 43, (Plate VII. fig. 7.) Testâ ovatâ, elongatâ, roseâ;

anfractibus octonis, costulatis, transversim striatis; costulis brevibus, rotundatis; suturâ lineâ nodosâ instructâ; aperturâ parvâ, ovali, roseâ; labro intûs lævi; canali brevi.

Inhab. North coast of New Guinea. From twenty-two fathoms, mud.

83. *CLAVATULA micans*, Hinds, l. c. p. 43, (Plate VII. fig. 11.) Testâ ovatâ, elongatâ, corneâ, nitidâ; anfractibus octonis, costulatis; costulis subacutis, albidis, obliquis, supernè propè suturam evanidis; anfractûs ultimi dorso ecostulato; aperturâ parvâ, ovali; labro tenui, acuto, intûs lævi; canali brevi.

Inhab. Gulf of Papagayo. From fourteen fathoms, mud.

84. *CLAVATULA albicans*, Hinds, l. c. p. 43, (Plate VII. fig. 8.) Testâ ovatâ, elongatâ, albidâ, nitidâ; anfractibus octonis, costulatis; costulis supernè subnodulosi; suturâ nodulosâ; sinu laterali ponè suturam; aperturâ parvâ, ovali; labro acuto, intûs lævi; canali brevi.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

85. *CLAVATULA mutica*, Hinds, l. c. p. 43, (Plate VII. fig. 10.) Testâ subfusiformi, pallidè fulvâ; anfractibus senis, rotundatis, transversim striatis, maculis fuscis longitudinalibus ornatis; suturâ simplici; anfractu ultimo mediò angulato et albo fasciato, ad basin fusco; sinu laterali juxtâ suturam; aperturâ ovali; labro acuto, intûs lævi; canali brevi.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

86. *CLAVATULA metula*, Hinds, l. c. p. 44, (Plate VII. fig. 12.) Testâ ovatâ, acuminatâ; anfractibus quinque planulatis, obsoletè costulatis, transversim striatis, pallidè rufo fasciatis; suturâ lineâ elevatâ instructâ; aperturâ lineari; labro subinflexo; canali subnullo.

Inhab. ——— ?

87. *CLAVATULA tessellata*, Hinds, l. c. p. 44, (Plate VII. fig. 17.) Testâ elongatâ, acuminatâ; anfractibus senis, subplanulatis, granulosi lineis longitudinalibus et transversis decussatis, maculis subquadratis fuscis pictis; suturâ simplici; aperturâ oblongâ; labro intûs crenulato; canali brevi.

Inhab. Straits of Macassar. From ten fathoms, coarse sand.

88. *CLAVATULA fulva*, Hinds, l. c. p. 44, (Plate VII. fig. 13.) Testâ ovatâ, acuminatâ, fulvâ; anfractibus senis, granulosi, tuberculato-costulatis, supernè angulatis; suturâ lineâ granulosâ instructâ; aperturâ parvâ, oblongâ; labro intûs lævi; canali brevi effuso.

Inhab. Straits of Macassar. From ten fathoms, coarse sand.

89. *CLAVATULA dentifera*, Hinds, l. c. p. 44, (Plate VII. fig. 14.) Testâ elongatâ, acuminatâ; anfractibus quinque, costulatis, lineis transversis decussatis; costulis numerosis, parvis, angustis, suturam incurrentibus; aperturâ oblongâ; labro crenulato, infernè dilatato et dentifero; columellâ infernè dente parvo; canali breviusculo.

Inhab. North coast of New Guinea; Straits of Malacca. From five to seventeen fathoms, mud.

90. *CLAVATULA glumacea*, Hinds, l. c. p. 44, (Plate VII. fig. 15.) Testâ elongatâ, pallidâ, nitidâ; anfractibus senis costulatis, transversim striatis; costulis brevibus, rotundatis, suturam simplicem incurrentibus; aperturâ oblongâ, fuscâ; labro intùs lævi; canali breviusculo.

Inhab. North coast of New Guinea. From twenty-two fathoms, mud.

91. *CLAVATULA retusa*, Hinds, l. c. p. 44, (Plate VII. fig. 16.) Testâ parvâ, obesâ, aurantiacâ; anfractibus septenis, costulatis, transversim striatis; costulis rotundatis, confertis; spirâ conicâ; suturâ simplici; apice purpureâ; aperturâ oblongâ; columellâ contortâ; canali breviusculo.

Inhab. Straits of Macassar. From ten fathoms, coarse sand.

92. *CLAVATULA rigida*, Hinds, l. c. p. 45, (Plate VII. fig. 18.) Testâ ovatâ, retusâ; anfractibus quinis, costulatis, supernè angulatis, transversim striatis; suturâ simplici; aperturâ oblongâ; labro crenulato; columellâ rugosâ; canali brevi.

Inhab. Panama.

Many of these species, particularly of the latter, are very small, but after an attentive and deliberate examination, they are all found to possess very clear and legible characters; and if the research necessary to their elucidation and discrimination has been at times laborious, it has also afforded much gratification in beholding with how much elegance and beauty even these minute objects have been formed, equally with the more prominent members of the creation. When we reflect what multitudes of similar beings inhabit the recesses of the globe, beyond the reach of human observation, and which at rare intervals are brought to light, like the present humble specimens, it requires the boldest stretch of the imagination even to bring within the comprehension an idea of the countless multitudes of organised beings of our earth, and all rich in some manner peculiarly their own, either in colour, sculpture, decoration, or symmetry.

CONOPLEURA. *Hinds.*

Testa coniformis, vel involuta; spira conico-elata; sinus lateralis posticus, profundus, margine callosâ; labrum intùs læve; columella subproducta; apertura linearis; canalis subnullus.

93. *CONOPLEURA striata*; (Plate VII. fig. 22, 23.) Species unica.

Inhab. New Guinea. In seven fathoms, among mud.

Two specimens only were obtained, and both bear marks of having laid some time in the mud without an animal occupant; they have probably from this undergone some change in their appearance. Both are destitute of colour or epidermis, coniform, with a somewhat elate, acuminate spire, and which is honey-combed in a remarkable manner, having regular excavations and partitions; the outer lip has the sinus of the family, and between it and the last whorl a callous

margin, which is continuous with the slightly-produced lamina of the columella. The body whorl is closely and somewhat elegantly covered with striæ, which sometimes are disposed to become flexuous. I do not know any other species of this family with which the present can be at all associated.

DAPHNELLA. *Hinds.*

Testa gracilè fusiformis, tenuis, fragilis; anfractus ultimus elongatus, spiram superans; sinus lateralis et antè suturam margine acuto; labrum tenue, intùs læve; apertura elongatè ovalis, vix canaliculata; columella nuda; plerumque striata.

Among the smaller *Pleurotomaceæ* are a few shells of a thin fragile structure, elongated in form, the outer lip acute, and separated from the last whorl so as to leave a sinus, aperture of a lengthened oval, scarcely any canal, and with the surface usually transversely striated. These form a very distinct group, and may be separated with advantage under a proper head; the best known of these is probably *Pleurotoma lymnæiformis*, Kiener.

94. *DAPHNELLA marmorata*, (Plate VII. fig. 19.) Testâ attenuatè ovali, tenui, striis transversis longitudinalibus decussantibus eleganter cancellatâ, pallidâ, fusco marmoratâ; anfractibus quatuor rotundatis, supernè planulatis et angulatis; columellâ arcuatâ, ad basin striatâ.

Inhab. New Guinea. In six fathoms, among mud.

95. *DAPHNELLA casta*, (Plate VII. fig. 20.) Testâ attenuatè fusiformi, vitreâ, fragili; anfractibus quinque rotundatis, transversim sulcatis; columellâ contortâ.

Inhab. Gulf of Nicoya, Central America. In twenty-three fathoms, among mud.

96. *DAPHNELLA ornata*, (Plate VII. fig. 21.) Testâ attenuatè fusiformi, pallidâ, maculis subquadratis rufis seriatim dispositis; anfractibus senis paulisper rotundatis, striis decussantibus cancellatis; aperturâ elongatâ; columellâ rectiusculâ.

Inhab. New Guinea. In six fathoms, among mud.

MANGELIA. *Leach.*

97. *MANGELIA cinnamomea*, Hinds, Proceed. Zool. Soc. 1843, p. 45, (Plate IX. fig. 1.) Testâ attenuatâ, nitidâ, cinnamomeâ, albo fasciatâ; anfractibus senis, plico-costulatis, transversim lævis-simè striatis; faucibus crenulatis.

Inhab. North coast of New Guinea; Straits of Macassar; Straits of Malacca. From five to twenty-two fathoms, mud.

98. *MANGELIA coronata*, Hinds, l. c. p. 45, (Plate IX. fig. 2.) Testâ attenuatâ, acuminatâ; anfractibus senis, plico-costulatis, transversim striatis; costulis supernè subacuminatis; faucibus lævibus.

Inhab. Straits of Macassar.

99. *MANGELIA vittata*, Hinds, l. c. p. 45, (Plate IX. fig. 3.) Testâ attenuatâ, pallidâ, fusco fasciatâ; anfractibus senis, plico-costulatis, transversim striatis; costulis numerosis; faucibus crenulatis.

Inhab. Straits of Macassar. From ten fathoms, coarse sand.

100. *MANGELIA oriza*, Hinds, l. c. p. 46, (Plate IX. fig. 4.) Testâ attenuatâ, acuminatâ, lævigatâ, nitidâ, hexagonè plico-costulatâ; anfractibus septenis; faucibus lævibus.

Inhab. North coast of New Guinea. From twenty-two fathoms, mud.

101. *MANGELIA celebensis*, Hinds, l. c. p. 46, (Plate IX. fig. 5.) Testâ attenuatâ, lævigatâ, pallidâ, fusco latè fasciatâ; anfractibus senis, plico-costulatis; costulis subdistantibus; faucibus crenulatis.

Inhab. Straits of Macassar. From ten fathoms, mud.

DEFRANCIA. *Millet.*

Such a vast number of species has of late poured in upon *Pleurotoma*, as left by Lamarck, that it is in the predicament of some of the Linnæan genera, which in time became swelled into families; and it is in this light that I now regard it. *Pleurotomaceæ* holds a somewhat analagous situation to what *Compositæ* does in Botany; as we extend our knowledge, it will unquestionably embrace a multitude of species, but unlike the latter, it stands greatly in need of a careful and judicious breaking up into generic groups. Among a few which have been as yet proposed, *Defrancia* is perhaps the happiest, as it separates several species which have very little affinity with *Pleurotoma*, and one of which has been placed in *Buccinum*, *B. Cumingii*.

102. *DEFRANCIA linearis*.

Pleurotoma linearis. De Blainville,—Kiener, Icon. pl. 25, fig. 4.

Inhab. New Guinea.

103. *DEFRANCIA philippinensis*.

Pleurotoma philippinensis, Reeve, Proceed. Zool. Soc. 1843, p. 184.

Inhab. Straits of Macassar. In eleven fathoms, coarse sand.

FAMILY—CERITHIACEÆ.

CERITHIUM. *Bruguieres*.

104. *CERITHIUM gemmatum*, (Plate XI. fig. 5, 6.) Testâ clavatâ subturritâ, acuminatâ, nitidâ; anfractibus planulatis, triseriatim granosis, serie superiore maximâ, lineis rufis transversim ornatis, propè labrum divergentibus, infrâ suturam albidis; aperturâ albâ, supernè callosâ; columellâ infernè productâ, plicâ parvâ; canali obliquè descendente.

Inhab. Panama. In situations where the floor is sandy mud, in from two or three to seven fathoms or upwards.

105. *CERITHIUM pharos*, (Plate XI. figs. 3, 4.) Testâ attenuatè elongatâ, lævigatâ, nitidâ, lacteâ, interdum maculis fuscis quadratis tri- vel quadriseriatim ornatâ; anfractibus concinnè plicatis, supernè paulisper coarctatis, lineis sparsis impressis decussatis; labro crenulato; aperturâ utrinque attenuatâ; columellâ uniplicatâ, callosâ; canali horizontali.

Inhab. Bow Island. Buried in the coral sand, under a few feet of water.

In the individuals which are ornamented with the tessellated markings, we have here a very attractive shell, and there is much chasteness in those which are altogether white. In some respects it is a miniature of *C. procerum*, Kiener, which also has a similar variety in the ornation. There is a peculiar contraction in the upper part of the whorls, across the folds, and if the finger is passed over the surface from the apex towards the base, it imparts a roughness almost equal to a steel file.

106. *CERITHIUM macrostoma*, (Plate XVI. figs. 11, 12.) Testâ elongatâ, gracili, acuminatâ; anfractibus rotundatis crebricostatis, transversim striatis, ultimo diaphano ecostato, ordinatim sulcato; labro repando, inflexo; columellâ obliquâ.

Inhab. Straits of Macassar. In eleven fathoms, among coarse sand.

TRIPHORIS. *Deshayes*.

This is a group of interesting and very beautiful little shells. From their minuteness they are likely to be passed over unheeded, but after a little examination, aided by a small magnifying power, the richness of their sculpture is brought into notice, and now it is found not easy to speak too highly of their attractions. Each species, too, is so distinctly and characteristically decorated, that a careful attention to a brief synopsis is sufficient to identify them. We are indebted to

M. Deshayes for the erection of the genus, but we regret to find him deviating from his original designation for one less classical. The earliest and best is here adopted. Few species, however, were for some time known, and no one was disposed to receive it, or add to the number of species. It was in this state when the shells of the *Sulphur* came under examination; and finding so many elegant species in this collection, the generic importance of the group became considerably increased. And at the same time, I became sensible that the characters of the group required some alteration. These changes, with the descriptions of twenty-nine species, were published in the eleventh volume of the *Annals of Natural History*; two more I have since described in the *Proceedings of the Zoological Society*; and these, together with a few others previously known, will extend the genus to about forty species.

1. Subgenus *INO*. *Hinds*.

Testa cylindraceo-subulata, elongata, acuminata.

107. *TRIPHORIS gigas*, Hinds, *Ann. Nat. Hist.* vol. xi. p. 17, (Plate VIII. fig. 1.) Testâ valdè elongatâ; anfractibus 25-28 planulatis, quadriseriatim granulosus, serie inferiore paululum maximâ, ad basin granulorum punctatis.

Inhab. New Guinea. From eighteen fathoms, on a muddy floor.

108. *TRIPHORIS concors*, Hinds, l. c. p. 17, (Plate VIII. fig. 2.) Testâ cylindraceâ; anfractibus viginti-duo, triseriatim granulosus; serie mediâ paululum minimâ; suturâ lineatâ; aperturâ rotundatâ; sinu laterali tubiformi.

Inhab. Straits of Malacca. In eighteen fathoms, mud.

109. *TRIPHORIS sculptus*, Hinds, l. c. p. 17, (Plate VIII. fig. 3.) Testâ pallidè rufente; anfractibus 15-18, biseriatim granoso-carinatis, mediò lævigatis, carinâ secundariâ; prope suturam carinulâ moniliferâ; sinu laterali patulo.

Inhab. Straits of Malacca. In twenty-three fathoms, mud.

110. *TRIPHORIS vittatus*, Hinds, l. c. p. 17, (Plate VIII. fig. 4.) Testâ lævigatâ, corneâ; anfractibus 22-25, transversim læviter sulcatis, mediò fusco eleganter vittatis; aperturâ subquadratâ; sinu laterali obsoleto.

Inhab. Straits of Malacca. In twenty-three fathoms, mud.

111. *TRIPHORIS bilix*, Hinds, l. c. p. 17, (Plate VIII. fig. 5.) Testâ attenuatâ, pallidâ; anfractibus quindecim tricarinatis; carinâ inferiore paululum maximâ marmoratâ, mediâ minimâ; aperturâ rotundatâ; sinu laterali patulo.

Inhab. Straits of Malacca. In twenty fathoms, mud.

112. *TRIPHORIS cancellatus*, Hinds, l. c. p. 18, (Plate VIII. fig. 6.) Testâ pallidè rufente;

anfractibus 15-18, bicarinatis; carinis albo maculatis; inter carinas cancellatâ, lineis albis longitudinalibus intervallis fuscis; suturâ sulcatâ; aperturâ subquadratâ; sinu laterali margine contractâ.

Inhab. Straits of Malacca. In twenty fathoms, mud.

113. *TRIPHORIS corrugatus*, Hinds, l. c. p. 18, (Plate VIII. fig. 7.) Testâ corneâ; anfractibus 17-20, tricarínatis, inter carinas corrugatis, carinâ mediâ secundariâ; suturâ læviter carinatâ; aperturâ rotundâ; sinu laterali lineari.

Inhab. New Guinea; in twenty-three fathoms, among fine gravel. Straits of Malacca; in eighteen to twenty fathoms, mud.

114. *TRIPHORIS maxillaris*, Hinds, l. c. p. 18, (Plate VIII. fig. 8.) Testâ roseâ; anfractibus 16-18, bisulcatis, superficie lævigatâ; marginibus sulcorum granulatis; suturâ sulcatâ, marginibus granulatis; aperturâ subquadratâ; sinu laterali parvo, patulo.

Inhab. Straits of Malacca. In eighteen to twenty-three fathoms, mud.

This species is very remarkably characterized. The surface is perfectly smooth, and of an agreeable rose colour; but each whorl is divided into three unequal parts by two furrows. The margins of each furrow, and also of the depressed line which marks the course of the suture, are provided with a series of horizontal granulations, which look towards each other, but do not appear above the surface of the shell, but under a magnifying glass display an appearance which seems to justify the specific name.

115. *TRIPHORIS micans*, Hinds, l. c. p. 18, (Plate VIII. fig. 9.) Testâ glaci, attenuatâ, fuscâ; anfractibus 20-22, supernè coarctatis, triseriatim granulosis, serie inferiore maximâ albidâ, superiore minimâ; aperturâ subquadratâ; sinu laterali lineari.

Inhab. New Guinea. In five to eighteen fathoms, mud.

116. *TRIPHORIS asperrimus*, Hinds, l. c. p. 18, (Plate VIII. fig. 10.) Testâ gracili, attenuatâ; anfractibus 24-26, supernè valdè coarctatis, infernè angulatis, serie duplici granulorum; propè suturam granuloso-carinatâ.

Inhab. New Guinea. In eight fathoms, mud.

It is remarkable for its long needle-like shape; and the upper portion of each whorl being strangulated, and the lower angular and with a series of tubercles, the shell has a very rough and jagged appearance.

117. *TRIPHORIS elegans*, Hinds, l. c. p. 18, (Plate VIII. fig. 11.) Testâ albâ, fusco marmoratâ; anfractibus 16-18, quadricarinatis; carinis duabus primariis, inferiore maximâ, duobus secundariis alternantibus; carinis omnibus maculis albis et fuscis ornatis; aperturâ rotundatâ; sinu laterali patulo.

Inhab. Straits of Malacca. In twenty fathoms, mud.

2. Subgenus SYCHAR. *Hinds.*

Testa elongata ; anfractus rotundati ; apex mamillaris.

118. *TRIPHORIS vitreus*, Hinds, l. c. p. 19, (Plate VIII. fig. 12.) Testâ pellucidâ ; anfractibus quindecem, lævigatis, rotundatis, lineis duabus elevatis cinctis ; apice mamillari ; aperturâ subquadratâ ; sinu laterali patulo.

Inhab. Straits of Malacca. In twenty fathoms, mud.

One of the elevated lines traverses the whorl about its centre ; the other, not at first very apparent, will be found on its lower surface near the suture.

3. Subgenus MASTONIA. *Hinds.*

Testa acuminata, circâ mediam tumida.

119. *TRIPHORIS vulpinus*, Hinds, l. c. p. 19, (Plate VIII. fig. 13.) Testâ nigricante ; anfractibus quatuordecem, tricarinatis ; carinâ inferiore albidâ ; aperturâ rotundatâ ; sinu laterali, subnullo.

Inhab. New Ireland. Found, together with other small shells, among fine gravel at low water.

120. *TRIPHORIS monilifer*, Hinds, l. c. p. 19, (Plate VIII. fig. 14.) Testâ parvâ, eleganter monili ; anfractibus decem, biseriatis granulosi ; granulis seriei inferioris albis intervallis rubris, supremæ albis ; aperturâ subquadratâ ; sinu laterali angusto.

Inhab. Straits of Malacca. In eighteen to twenty-three fathoms, mud.

The series of beedings of the upper whorls will be found to be doubled on the last whorl—a circumstance which also occurs in other species.

121. *TRIPHORIS ruber*, Hinds, l. c. p. 19, (Plate VIII. fig. 15.) Testâ rufâ ; anfractibus undecem, biseriatis granulosi, seriebus subdistantibus suturam obtegentibus ; aperturâ rotundatâ ; sinu laterali margine contractâ.

Inhab. New Ireland ; very numerous among fine gravel at low water. Straits of Malacca ; in twenty fathoms, mud.

Its reddish colour and double series of tubercles will readily distinguish this shell. In some of the specimens a small intermediate series is about to make its appearance on the one or two inferior whorls.

122. *TRIPHORIS clemens*, Hinds, l. c. p. 20, (Plate VIII. fig. 16.) Testâ corneâ, nitidâ ; anfractibus quindecem, triseriatis granulosi ; serie mediâ parvâ, ad inferiorem appropinquante, inferiore prominulo-margaritaceâ ; anfractûs ultimi granulis parvis ; suturâ sulcatâ ; aperturâ rotundâ ; sinu laterali patulo.

Inhab. Straits of Malacca. In twenty fathoms, mud.

123. *TRIPHORIS carteretensis*, Hinds, l. c. p. 20, (Plate VIII. fig. 17.) Testâ pallidâ; anfractibus quatuordecem, triseriatim granulosis, serie mediâ minimâ, infrâ duas superiores sulcatis; aperturâ subquadratâ; sinu laterali patulo.

Inhab. Port Carteret, New Ireland. Among fine gravel at low water.

124. *TRIPHORIS hilaris*, Hinds, l. c. p. 21, (Plate VIII. fig. 18.) Testâ elongatâ; anfractibus quatuordecem, tricarinatis; carinis duabus inferioribus æqualibus albidis, superiore marmoratâ paululum maximâ.

Inhab. Pacific Ocean.

125. *TRIPHORIS roseus*, Hinds, l. c. p. 21, (Plate VIII. fig. 19.) Testâ ovali; anfractibus decem, biseriatis granulosis, seriebus corneis, mediò lævigato roseo serie tertiâ parvâ; aperturâ rotundatâ.

Inhab. South Pacific Ocean.

126. *TRIPHORIS concinnus*, Hinds, l. c. p. 20, (Plate VIII. fig. 20.) Testâ ovali, elongatâ; anfractibus novem, triseriatim granulosis; serie mediâ minimâ, inferiore fuscâ, superiore corneâ.

Inhab. Pacific Ocean.

The manner in which the series of markings of the spire are repeated in the last whorl is well seen in this species, where the handsome dark spiral line resulting from the lower series is again twice repeated; so that the last whorl has really five series of granules.

FAMILY — BUCCINACEÆ.

BUCCINUM. *Linnæus*.

127. *BUCCINUM metula*, (Plate XVI, fig. 13, 14.) Testâ fusiformi, utrinque attenuatâ, pallidâ, cancellatâ, maculis quadratis rufis seriatim ornatâ; labro subarcuato, crassiusculo, subcrenato; aperturâ attenuatâ.

Inhab. West coast of Veragua. Obtained from a depth of a few fathoms, among mud.

It must be acknowledged that this shell has very questionable affinities with *Buccinum*, but it remains either to place it here or assign it a separate station. The latter course seemed to me scarcely judicious, and it will best remain here till some thorough revision of this family is effected. In our collections some small species exist which have a close relation with the present.

TEREBRA. *Bruguères.*

128. *TEREBRA robusta*, Hinds, Proceed. Zool. Soc. 1843, p. 149. Testâ turrilo-subulatâ, solidâ, ponderosâ, albidâ, flammeis longitudinalibus interruptè pictâ; anfractibus inferioribus rotundatis, indivisis, lævigatis, superioribus versùs extremitatem spiræ subplanulatis, unicinguliferis, longitrossum plicatis; anfractu ultimo rotundato, triseriatim picto, ad basin coarctato; aperturâ elongatâ; columellâ arcuatâ, subcallosâ; epidermide luteofuscâ; operculo parvo, crasso.

Inhab. West coast of America, between $8^{\circ} 57'$ and $21^{\circ} 32'$ north latitude; namely, at Panama, Gulf of Nicoya, Gulf of Papagayo, and San Blas. In from four to eighteen fathoms, sandy mud.

129. *TEREBRA alveolata*, Hinds, l. c. p. 151. Testâ turrilo-subulatâ, attenuatè acuminatâ, nitidâ, fuscâ; anfractibus subplanulatis, supernè cingulo tuberculato cinctis, infrâ plico-costatis, interstitiis striatis; cingulo et anfractu ultimo albo fasciato, maculis quadratis rufis articulato.

Inhab. Straits of Malacca; in seventeen fathoms, among mud.

The description is drawn up from a somewhat young specimen, and the mouth and last whorl have not yet attained their full development. The character of the shell is, however, very conspicuous. In this genus the last whorl will be found very frequently to offer decided features, and becomes a valuable aid in the diagnosis.

130. *TEREBRA pulchra*, Hinds, l. c. p. 151. Testâ turrilatâ, conico-subulatâ, acuminatâ, nitidâ, pallidâ; anfractibus subplanulatis, longitrossum rectè plico-costatis, supernè lineâ impressâ cinctis, interstitiis lævigatis; anfractu ultimo pallidè lineato.

Inhab. Marquesas. In seven fathoms.

Perhaps more nearly resembling *T. plicata* than any other species, from which, with a little care, the description will suffice to distinguish it.

131. *TEREBRA nitida*, Hinds, l. c. p. 152. Testâ obeso-subulatâ, acuminatâ, pallidè plumbeâ, politâ; anfractibus subplanulatis, rectè plico-costatis, supernè interstitiis lineâ punctatâ cinctis, ultimo parvo subattenuato, unicolore, plicis evanidis; labio interno producto; labro anticè subsinuoso.

Inhab. Marquesas. In seven fathoms, sandy mud.

An excellent diagnostic character exists in this species, in the circumstance that the girdling line which traverses the upper part of each whorl does not cross the ribs, but is confined to the interstices.

132. *TEREBRA varicosa*, Hinds, l. c. p. 152. Testâ elongatè conico-subulatâ, acuminatâ, nitidâ; anfractibus subplanulatis, plico-costatis, supernè cingulo tuberculato contractato cinctis; costis

subdistantibus albidis, interstitiis striatis fuscis; anfractu ultimo breviusculo, rotundato, albo fasciato; columellâ contortâ.

Inhab. Gulf of Papagayo, west coast of Central America. In twenty-three fathoms, mud.

133. *TEREBRA lingualis*, Hinds, l. c. p. 153. Testâ turrato-subulatâ, albidâ, flammeis atro-fuscis longitudinalibus ornatâ; anfractibus planulatis, duabus lineis impressis divisis, infrâ suturam tuberculatis; areâ inferiore lævigatâ; anfractu ultimo subrotundato, lævigato, fasciato; aperturâ quadratâ; columellâ contortâ.

Inhab. Gulf of Papagayo, Bay of Montejo, west coast of America. Ten to seventeen fathoms, sandy mud.

The whorls, particularly those of the spire, are divided into three spaces by two girdling lines; the lower area is smooth, but the two others, particularly the most superior, is tubercled. It is a handsome species, from the deep reddish-brown flames with which it is covered.

134. *TEREBRA ligata*, Hinds, l. c. p. 153. Testâ elongatè subulatâ, acuminatâ; anfractibus planulatis, transversim striatis, cingulis duobus tuberculatis, cingulo superiore et areâ inferiore maculis quadratis fuscis transversis ornatâ, cingulo inferiore minore albidâ concolore; anfractu ultimo parvo, biserialim maculato.

Inhab. Marquesas. In seven fathoms, sandy mud.

135. *TEREBRA funiculata*, Hinds, l. c. p. 153. Testâ elongatè subulatâ, nitidâ, fulvâ; anfractibus numerosis, planulatis, supernè cingulo lævi lineâ impressâ diviso, infrâ cingulo minore, areâ inferiore transversim striatâ; anfractu ultimo brevi, mediò sulco unico; aperturâ parvâ, concolore; labio interno subcalloso, producto.

Hab. — ?

136. *TEREBRA eburnea*, Hinds, l. c. p. 153. Testâ obeso-subulatâ, albâ; anfractibus lævigatis, nitidis, supernè lineâ impressâ, infernè uni-vel biserialim lineis punctatis cinctis; anfractu ultimo seriebus quinque linearum punctarum; aperturâ elongatâ; columellâ lævi, brevisculâ.

Inhab. Seychelles.

137. *TEREBRA amanda*, Hinds, l. c. p. 154. Testâ elongatè conico-subulatâ, nitidâ; anfractibus planulatis, supernè cingulo tuberculato margaritaceo cinctis, infrâ secundo minore concolore, infernè aurantiacis biserialim punctato-lineatis, ultimo brevi; columellâ contortâ.

Inhab. Straits of Macassar. In eleven fathoms, coarse sand.

An uncommonly pretty shell, offering an elegant contrast between the row of pearly tubercles and the general orange colour.

138. *TEREBRA violascens*, Hinds, l. c. p. 154. Testâ turratâ, cylindraco-subulatâ, violaceâ;

anfractibus rotundatis, longitrorsum obliquè plico-costatis, supernè lineâ impressâ obsoletè cinctis; costis subconfertis, interstitiis crebrè striatis; aperturâ parvâ, elongatâ; labio interno producto.

Inhab. New Guinea; in seven fathoms, mud.

The species is very like an American fossil from Alabama, *T. venusta*, Lea.

139. *TEREBRA armillata*, Hinds, l. c. p. 154. Testâ turrity-subulatâ, acuminatâ, fuscâ; anfractibus planulatis, longitrorsum subdistanter plico-costatis, transversim lineis definitis impressis, supernè cingulo noduloso, ætate valdè notabili; anfractu ultimo subquadrato, ad basin albo fasciato; aperturâ atro-fuscâ; columellâ contortâ.

Inhab. Abundant in various localities on the west coast of America between Panama and the Bay of Magdalena in Lower California, in from five to thirteen fathoms. It was also found imbedded in the fossiliferous cliffs which surround a portion of the Bay of Magdalena.

140. *TEREBRA tuberculosa*, Hinds, l. c. p. 155. Testâ turrity-subulatâ, acuminatâ, olivaceâ; anfractibus planulatis, lævigatis, politis, supernè cingulo tuberculato, areâ inferiore triseriatim tuberculato, seriebus duabus superioribus frequenter subevanidis; anfractu ultimo subquadrato, unicolore, multiseriatim tuberculato; columellâ contortâ.

Inhab. Panama, Gulf of Papagayo, and San Blas; in from four to eleven fathoms.

141. *TEREBRA specillata*, Hinds, l. c. p. 155. Testâ gracilè turrity-subulatâ, valdè acuminatâ, albâ, rufo sparsim maculatâ et nebulosâ; anfractibus subplanulatis longitrorsum subdistanter tenuè plico-costatis, transversim læviter striatis, supernè cingulo tuberculato, interstitiis tubercolorum præcipuè pictis; anfractu ultimo fasciato; aperturâ parvâ; columellâ subrectâ.

Inhab. San Blas; from seven fathoms, sandy mud.

142. *TEREBRA textilis*, Hinds, l. c. p. 156. Testâ turrity-subulatâ, pallidè luteâ; anfractibus ferè planulatis, longitrorsum plicatis, supernè lineâ punctato-impressâ cinctis, serie tubercolorum deindè excisâ albidâ; plicis approximatis, interstitiis striatis; anfractu ultimo parvo, unicolore; columellâ plicatâ, labio interno producto.

Inhab. Straits of Macassar; in from six to thirteen fathoms, sand and coarse gravel.

This Asiatic species very closely resembles the American just described, and furnishes another of those instances of affinity, which, whilst still retaining unquestionable distinctness, occur so frequently in the shells of the tropics of the two hemispheres; and thus whilst both are enriched by similar forms, these present themselves under slight but constant differences.

143. *TEREBRA penicillata*, Hinds, l. c. p. 157. Testâ turrity, obeso-subulatâ, lævigatâ, politâ, albâ lineis undatis rufis longitrorsum dispositis; anfractibus integris, ultimo elongato, efasciato; spirâ obsoletè plicatâ; aperturâ elongatâ; columellâ lævi.

Inhab. Seychelles.

144. *TEREBRA luctuosa*, Hinds, l. c. p. 157. Testâ gracilè acuminatâ, lævigatâ, politâ, atrofuscâ, rariùs castaneâ vel olivaceâ; anfractibus subplanulatis, integris, supernè plicis parvis undatis, infrà evanidis, ultimo elongato, concolore; columellâ lævi, breviusculâ.

Inhab. Gulf of Nicoya; Puerto Portrero, west coast of America; in twelve fathoms, coral sand.

145. *TEREBRA tenera*, Hinds, l. c. p. 158. Testâ parvâ, obeso-subulatâ, lævigatâ, nitidâ, anfractibus plico-costatis, pallidè fulvis, supernè prope suturam rufo fasciatis, ultimo ad basin rufo; plicis continuis; columellâ contortâ.

Inhab. Straits of Malacca, in seventeen fathoms; Ceylon.

146. *TEREBRA mera*, Hinds, l. c. p. 158. Testâ subcylindræo-subulatâ, lævigatâ, nitidâ, albidâ, vel pallidè rufo latè fasciatâ; anfractibus subplanulatis, supernè plicis parvis numerosis obliquis, infrà evanidis; aperturâ parvâ, elongatâ; columellâ subtruncatâ.

Inhab. Straits of Malacca, in seventeen fathoms.

147. *TEREBRA pygmæa*, Hinds, l. c. p. 158. Testâ purpureâ, obeso-subulatâ; anfractibus paucis, subrotundatis, longitrorsum minutè plico-costatis, supernè insigniter fasciâ angustâ atropurpureâ cinctis, ultimo propè basin fasciato; aperturâ parvâ, fuscâ; labio interno subproducto.

Inhab. Straits of Malacca, in seventeen fathoms.

As the new species here introduced are included in my Monograph of the genus *Terebra* in Mr. Sowerby, Jun. Thesaurus Conchyliorum, I have not considered it desirable to repeat figures of them here.

NASSA. Lamarck.

148. *NASSA candens*, (Plate IX, fig. 6, 7). Testâ ovatâ, ventricosâ, acuminatâ, turritâ, pallidâ, fusco nebulosâ; anfractibus senis rotundatis, concinnè cancellatis, ad angulos tuberculatis, infrà suturam tuberculorum seriebus duabus incrassatis; labro integro; aperturâ callo albo.

Inhab. Marquesas Islands.

Neatly cancellated, ovate, and acuminate, spire turreted, whorls with a twin row of enlarged tubercles beneath the suture, which will materially assist to distinguish it; the outer lip is considerably dilated inferiorly, with the margin entire, and in the older specimens thickened and even slightly everted.

149. *NASSA cremata* (Plate IX, fig. 8, 9). Testâ ovatâ, acuminatâ subturritâ, rufescente; anfractibus septenis rotundatis, concinnè cancellatis, interstitiis quadratis, pallidè fasciatis; labro dentato, infernè sinuoso; columellâ productâ, anticâ.

Inhab.

This species differs from the preceding in being something less turreted, the

absence of the enlarged series of tubercles beneath the suture, the angles of the decussating lines not being distinctly tubercular, outer lip toothed, and the inner produced forwards with a sharp margin.

150. *NASSA perpunguis*, (Plate IX, fig. 12, 13). Testâ elongatè ovatâ, acuminatâ, lutescente, tenui; anfractibus senis rotundatis, ventricosis, cancellatis, concoloribus vel pallidè fasciatis, ultimo parviusculo; columellâ vix callosâ.

Inhab. Bay of Magdalena, California.

The last whorl is comparatively small and contracted, and as the two succeeding are rounded, it gives the shell a very obese appearance; the outer lip has a slight sinus, and a vteous callus is sparingly deposited over the columella.

151. *NASSA myristicata*, (Plate IX, fig. 10, 11). Testâ ovatâ, acuminatâ, solidâ, sordidâ; anfractibus octonis rotundatis, costis rotundis obliquis longitrorsum indutis, spiræ per series adscendentibus, lineis salientibus rufis transversim decussatis; aperturâ parviusculâ; labio interno anticè producto.

Inhab. Cape of Good Hope.

The characters here are bold and distinguishing; full rounded ribs are traversed by elevated reddish brown lines; those of the spire are continuous, the aperture is small, and the columella has a thin produced lamina. The whole shell is solid and ponderous.

152. *NASSA nodata*, (Plate IX, fig. 14, 15). Testâ ovatâ, elongatâ, pallidâ; anfractibus septenis rotundatis, longitrorsum costatis, lineis salientibus decussatis, suprâ costas tuberculosas albidis, ultimo nigro bifasciato; labro integro acuto; labio interno producto; aperturâ parviusculâ.

Inhab. Straits of Malacca; from seventeen fathoms, in the mud.

153. *NASSA mæsta*, (Plate IX, fig. 18, 19). Testâ parvâ, ovatâ, acuminatâ, nigricante; anfractibus senis subplanulatis supernè paulisper coarctatis, longitrorsum plico-costatis, lineis decussatis granulosis, infrâ suturam lutescentibus; columellâ callosâ; aperturâ nigrâ.

Inhab. Gulf of Papagayo, west coast of Central America; in from eight to fourteen fathoms, among mud.

154. *NASSA gaudiosa*, (Plate IX, fig. 16, 17.) Testâ ovatâ, elongatâ, acuminatâ, politâ, fuscâ vel rufescente, albo articulatè fasciatâ; anfractibus subrotundatis, supernè plicatis, lineis rufis transversis instructis; labro integro: columellâ nudâ, lævi.

Inhab. Straits of Malacca.

Shell ovate, elongated, and polished; whorls, beneath the suture plicated, adorned with equidistant red lines, mottled with dark and white, which often assume an articulated fasciated character; columella not in the least callous, and quite smooth.

PHOS. *Montfort.**Phos*, Montfort, 1810. *Rhinodomus*, Swainson, 1840.

155. *PHOS crassus*, Hinds, Ann. Nat. Hist. vol. xi. p. 257, (Plate X, fig. 1, 2.) Testâ elongatè ovatâ, subturritâ, solidâ, pallidè fuscâ; anfractibus rotundatis, costatis; costis rudibus, subdistantibus, lineis salientibus decussatis; labro grandidentato; columellâ anticè valdè productâ.

Inhab. Panama; Gulf of Fonseca; dredged as solitary shells in from three to fourteen fathoms, among mud.

Solid and massive, with large coarse ribs crossed by prominent lines; whorls slightly contracted beneath the suture; the margin of the outer lip toothed, internal ridges strongly marked; columella with a lamina produced directly and boldly forward. The colour is light brown, somewhat deeper on the ribs.

156. *PHOS virgatus*, (Plate X, fig. 11, 12.) Testâ elongatè ovatâ, lævigatâ, pallidè fuscâ; anfractibus rotundatis costatis, infrâ suturam subcoarctatis; costis rotundatis, supernè nodatis, lineis impressis fuscis transversim instructis; labro subcrenulato; columellâ lævi, productâ.

Inhab. Ceylon.

As in the preceding, the whorls are somewhat contracted beneath the suture, and hence the ribs present at the upper part a nodulous appearance; regularly disposed excavated lines are arranged transversely. In some specimens the ribs are occasionally disposed to become varicose. The outer lip is somewhat crenulate on the margin, and the inner is slightly produced.

157. *PHOS retecosus*, (Plate X, fig. 3, 4.) Testâ elongatè ovatâ, ventricosâ subturritâ, pallidâ; anfractibus rotundatis, concinnè costatis; costis numerosis, circâ quindecim ad peripheriam, lineis transversis nodulosis, ponè labrum valdè aggregatis; labro subcrenulato: columellâ varicosâ, vix callosâ.

Inhab. Ceylon.

In this species the ribs are numerous, and nodulous at the crossings of the transverse lines; in the adult shell there is also a curious aggregation of them behind the outer lip, and which is of a whiter colour than the other portions. The columella supports several varices, and is clothed with a slightly produced callus. Judging from the figures given by M. Deshayes, this species very closely resembles his *Buccinum Roissyi*, if we except the peculiar character furnished by the labrum, no signs of which I can discover in his figures, though it is constant in all our specimens.

158. *PHOS veraguensis*, Hinds, Ann. Nat. Hist. vol. xi. p. 257, (Plate X, fig. 13, 14.) Testâ elongatè ovatâ, cancellatâ, fuscâ; anfractibus subrotundatis, obsoletè fasciatis, cancellis transversis, ad angulos subnodosis; labro crenulato; columellâ nudâ vel vix callosâ.

Inhab. Pueblo Nueva, west coast of Veragua ; in twenty-six fathoms, living gregariously in the mud.

The law of repetition of affinity under similar circumstances, meets with copious illustration in tropical American shells, when compared with those of corresponding situations in the Asiatic seas ; and in some cases the species are not easily defined. Thus, *Solarium granulatum* of Asia is represented by *S. quadriceps* ; many further instances may be found in *Pleurotoma*, *Nucula*, *Cardium*, *Natica*, &c., and in the present case we have the representative of *Phos senticosus*.

159. *Phos articulatus*, (Plate X. fig. 7, 8.) Testâ elongatè ovatâ, albidâ, fusco nebulosâ, anfractibus rotundatis, costatis, lineis impressis transversis, infrâ suturam planulatis et angulatis, albo fusco articulo angustè fasciatis ; costis circâ quatuordecem ad peripheriam, interdum varicosis ; columellâ nudâ.

Inhab. Panama.

The narrow banded articulated markings render this very distinct, and at the same time confer on it considerable beauty.

160. *Phos roseatus*, (Plate X, fig. 9, 10.) Testâ ovatâ, acuminatâ, turritâ, cancellatâ, interdum varicosâ ; anfractibus rotundatis, sparsim fusco nebulosis ; labro ponè costis aggregatis, sinu magno ; aperturâ subquadratâ, roseâ, supernè callosâ sed edenticulatâ.

Inhab. North coast of Sumatra.

This *Phos* has the varices of a *Triton*, with its proper mouth and external cancellation. The former is of a delicate rose pink.

161. *Phos gaudens*, (Plate X, fig. 5, 6.) Testâ elongatè ovatâ, acuminatâ, nitidâ, pallidâ, propè suturam atro-fusco fasciatâ ; anfractibus rotundatis, costatis, costis circâ novem ad peripheriam, albidè nodulosis, interstitiis subtiliter striatis, ultimo fasciato ; aperturâ elongatè ovali.

Inhab. Gulf of Tehuantepec, west coast of Mexico. Dredged from thirteen fathoms.

COLUMBELLA. Lamarck.

162. *COLUMBELLA fusiformis*, (Plate X, fig. 17, 18.) Testâ fusiformi, utrinque attenuatâ, lævigatâ, pallidâ, strigis rufis longitrorsum nubeculatâ ; anfractibus subrotundatis, nudis, ad extremum spiræ costatis, ultimo dorsò tuberculo unico ; labro incrassato, planulato, intùs lævi ; aperturâ elongatâ, albidâ ; labio interno subproducto ; epidermide tenui indutâ.

Inhab. Veragua, west coast of America. In twenty-four fathoms, among sand.

The associate of *C. lanceolata* and *C. recurva*, from which it is distinguished by its smooth whorls, naked of tubercles or ribs, if we except the very extreme

ones of the spire. A remarkable sharp tubercle is situated on the back of the last whorl.

163. *COLUMBELLA pavonina*, (Plate X, fig. 19, 20.) Testâ obeso-ovatâ, politâ, solidâ, pallidâ, maculis vel strigis saturatè rufis longitrorsum ornatâ; anfractibus subplanulatis, læviter sulcatis, ultimo magno, supernè obtusè angulato; spirâ exsertâ, acuminatâ; aperturâ elongatâ; labio interno producto.

Inhab. — ?

The last whorl is proportionately large, solid, and shouldered, whence a comparatively small taper spire has its origin. The ground colour is white, but this is handsomely varied by irregular blotches of a decided red, these maintaining a longitudinal direction. The paper referring to its habitat has been accidentally mislaid, but it is most probably from America.

164. *COLUMBELLA carinata*, (Plate X, fig. 15, 16.) Testâ ovatâ, acuminatâ, lævigatâ, subtenui, fuscâ, spirâ nigricante; anfractibus subrotundatis, ultimo supernè carinâ obtusâ albidâ cincto, subtùs coarctato; labro inflexo, vix incrassato; aperturâ nigrâ.

Inhab. Bodegas and San Diego, California. In seven fathoms and under that depth.

165. *COLUMBELLA lentiginosa*, (Plate X, fig. 21, 22.) Testâ parvâ, ovatâ, nigricante, albo conspersâ; anfractibus longitrorsum plico-costatis, infrâ suturam fasciâ albâ cinctis, ultimo transversim sulcato; aperturâ nigricante.

Inhab. Gulf of Nicoya. Associated in considerable numbers with *Columbella pygmæa* under the stones of the beach.

Beneath a magnifying power, the speckled appearance of this little shell becomes resolved into numerous regularly disposed articulated transverse bands, separated by furrows. These are most conspicuous on the last whorl, as on the spire they are interrupted by the rib-like folds.

TRICHOTROPIS. *Broderip et Sowerby.*

166. *TRICHOTROPIS cancellata*, Hinds, Proceed. Zool. Soc. 1843, p. 17, (Plate XI, fig. 11, 12.) Testâ oblongâ; anfractibus senis, rotundatis, costatis, valdè cancellatis; costis setosis; anfractu ultimo infrâ subplanulato; suturâ profundâ; aperturâ rotundatâ, ad basin truncatâ; umbilico parvo lineari, labio interno ferè occulto.

Inhab. Sitka, North-west America. Dredged in the harbour from a sandy bottom, in from five to seven fathoms, together with *T. inermis*.

Shell oblong, the spire more produced than in *T. bicarinata*; the whorls

separated by a deep suture, profoundly cancellated ; many keeled, and furnished on the lines of the striæ of increase with numerous short bristles at regular intervals. The aperture is rounded, and truncated at the base ; the canal so short as scarcely to exist. Umbilicus small, and somewhat concealed by the inner lip, which is slightly developed.

167. *TRICHOTROPIS inermis*, Hinds, l. c. p. 18, (Plate XI, fig. 13, 14.) Testâ ovatâ, solidulâ ; anfractibus quaternis rotundatis, multicostatis, longitudinaliter lævissimè striatis ; costulis subæqualibus, planulatis, inermibus ; aperturâ oblongâ, canali brevi desinente ; umbilico mediocri ; labio interno producto.

Inhab. Sitka, North-west America. Obtained in company with the preceding.

In shape and outline this shell approaches *T. borealis*. It will be readily distinguished from any hitherto known species by the absence of armature on the epidermis, in which we lose sight in the instance before us of one of the characters of the genus. The whorls are rounded and separated, as in the other species, by a deep suture. The last whorl is remarkable for the strong ridges which it bears at rather distant intervals, marking the termination or commencement of the periodical stages of growth. In the method of formation of the canal there is a close affinity in this shell to some *Cancellariæ*, particularly in the angular-mouthed species, and the affinity is extended to the character of the whorls and their connexion by the suture.

FAMILY—MITRACEÆ.

MITRA. *Lamarck*.

168. *MITRA Belcheri*, Hinds, Ann. Nat. Hist. vol. xi. p. 255, (Plate XI, fig. 1, 2.) Testâ fusiformi, turritâ, elongatâ, solidâ ; anfractibus lævigatis, inæqualiter sulcatis vel exaratis, divisionibus duabus superioribus majoribus ; epidermide nigrâ indutâ sed infrâ lacteâ ; columellâ quadriplicatâ ; labio externo tenui.

Inhab. Gulfs of Nicoya and Papagayo, Central America. Dredged from a muddy floor in seventeen fathoms.

This fine shell approaches the largest species of the genus, and is distinguished for its handsome symmetry. It is of an elongated fusiform shape, turreted, the spire rather produced, and the last whorl occupying not more than half of the entire length. The shell itself is milky white, but is everywhere covered by a smooth black epidermis. The whorls are ploughed at unequal distances with deep channels or sulci, of which the two superior divisions have the greatest breadth, but the inferior of the two is the broadest. The columella is furnished

with four plaits, the upper being somewhat distant, and the lower not very distinct. The outer lip is thin, and uneven by reason of the sulci which terminate on the margin; the inner is slightly developed.

IMBRICARIA. *Schumacher.*

Imbricaria, Schumacher, 1817. *Conohelix*, Swainson, 1833.

169. IMBRICARIA *carbonacea*, (Plate XI, fig. 9, 10.) Testâ conico-involutâ, lævigatâ, politâ, nigerrimâ, propè basin obsoletè sulcatâ; spirâ acuminatâ; columellâ quinque-plicatâ; plicis gradatim minoribus, inferioribus subobsoletis.

Inhab. L'Agulhas Bank, Cape of Good Hope. Dredged from deep water, on a gravelly floor.

CANCELLARIA. *Lamarck.*

170. CANCELLARIA *ventricosa*, Hinds, Proceed. Zool. Soc. 1843, p. 47, (Plate XII, fig. 11, 12.) Testâ ovatâ, acuminatâ, albescente; anfractibus septenis, ventricosis, subturbinatis, cancellatis, interstitiis quadratis; aperturâ oblongâ, propè mediam dilatâtâ; labio interno expanso; columellâ triplicatâ; umbilico mediocri.

Inhab. The west coast of America, between 12° 28' and 24° 38' north latitude; viz. Realejo, in from sixty to seventy fathoms; San Blas; Gulf of Magdalena, California, in seven fathoms, sandy mud.

Very similar in its characters to *C. candida*, but distinguished from it in the absence of the secondary impressed lines which cross and interfere with the cancellation. *C. candida* is described with only two columellar folds, which might be regarded as another source of difference, our shell having three very distinct. But I think it will be found on close examination that the former has a third incipient fold, which, though very small, truly exists.

171. CANCELLARIA *urceolata*, Hinds, l. c. p. 47, (Plate XII, fig. 7, 8.) Testâ ovatâ, acuminatâ, lævigatâ, epidermide fuscâ indutâ; anfractibus septenis, costatis, supernè subangulatis, ultimo subquadrato; costis parviusculis, rotundatis, lineis elevatis decussatis; aperturâ oblongâ, in canalem recurvum effusum desinente; labro subrecto, intùs sulcato; labio interno expanso; columellâ bipliatâ, sed plicâ tertiâ inferiore obsoletâ; plicâ superiore in dente acuto desinente, sinu inferiore magno; umbilico parvo.

Inhab. The west coast of America, between 12° 2' and 21° 32' north latitude;

viz. Gulf of Papagayo, in from eight to fourteen fathoms; San Blas, in seven fathoms.

The elevations which cross this shell are remarkably disposed. If the finger-nail is driven over the shell, from the base towards the apex, it meets with no resistance, but if in the contrary direction it is obstructed at every elevation. The squareness of the last whorl and the straight outer lip have a mutual relation, since they are dependent on each other; and these characters, taken collectively, will be of value in making a diagnosis between nearly allied species.

172. *CANCELLARIA albida*, Hinds, l. c. p. 47, (Plate XII, fig. 9, 10.) Testâ oblongâ, subattenuatâ, cancellatâ, albescente; anfractibus septenis, interstitiis transversis vel subquadratis; aperturâ oblongâ; labro acuto, intus sulcato; columellâ biplicatâ, plicâ tertiâ inferiore obsoletâ; umbilico minimo, suboculto; canali mediocri, contorto.

Inhab. The west coast of America, between 2° 47' south, and 9° 55' north latitude; viz. Bay of Guayaquil, Panama, and Veragua, in from seven to twenty-three fathoms.

173. *CANCELLARIA cremata*, Hinds, l. c. p. 48. Testâ oblongâ, subattenuatâ, fuscâ, lucidâ; anfractibus quinis, cancellatis, interstitiis magnis, transversis vel subquadratis; aperturâ oblongâ, supernè plicâ unicâ; labro intus sulcis subdistantibus, labio interno expanso; columellâ triplicatâ; umbilico mediocri; canali breviusculo.

Inhab. Bay of Panama; from a muddy bed in from four to ten fathoms.

The figures *Cancellaria* 9 and 10, in the "Conchological Illustrations," appear to me to represent two distinct species, both of which were collected in H. M. S. *Sulphur*. Fig. 10 corresponds more closely with the description of *C. indentata*, and to this I would limit the species. Fig. 9 will then represent the above.

174. *CANCELLARIA corrugata*, Hinds, l. c. p. 48, (Plate XII, fig. 1, 2.) Testâ bucciniformi, fuscâ; anfractibus quaternis, subventricosis, rugis parvis longitudinalibus confertis indutis, lineis impressis decussatis; aperturâ oblongâ, fuscâ; labro intus sulcato; columellâ plicis duabus albidis instructâ; umbilico nullo; canali mediocri.

Inhab. Bay of Guayaquil. From seven fathoms, mud.

175. *CANCELLARIA elata*, Hinds, l. c. p. 48, (Plate XII, fig. 3, 4.) Testâ ovatâ, elongatâ, acuminatâ; anfractibus septenis costatis, supernè angulatis, lineis elevatis decussatis; suturâ profundâ; aperturâ ovali; peritremate supernè disjuncto; labro intus sulcato; columellâ triplicatâ; plicâ inferiore maximâ; umbilico parvo, suboculto; canali inflexo.

Inhab. A single specimen was obtained at Panama, from thirty fathoms.

This shell will always be readily distinguished by its elongated form,

shouldered ribs, and by the remarkable circumstance of the plaits on the columella being reversed in size, the inferior being the largest.

176. *CANCELLARIA funiculata*, Hinds, l. c. p. 48, (Plate XII, fig. 5, 6.) Testâ ovatâ, elongatâ; anfractibus senis, costatis, supernè subangulatis; costis subdistantibus elevatis, rotundatis, nodulosis, lineis elevatis decussatis; suturâ profundâ; labro intùs sulcato; columellâ plicis tribus parvis; umbilico marginato; canali subnullo.

Inhab. A single specimen only was obtained by the dredge from seven fathoms, sandy mud, in the Gulf of Magdalena, California.

177. *CANCELLARIA bicolor*, Hinds, l. c. p. 48, (Plate XII, fig. 13, 14.) Testâ retusâ, contabulatâ, fusco-nigricante; anfractibus septenis, angulatis, procul costatis; costis acutis, lineis elevatis distantibus decussatis; aperturâ trigonâ, supernè callositate albâ; labro reflexo, intùs sulcato; columellâ triplicatâ; umbilico magno.

Inhab. Straits of Macassar. From ten fathoms, coarse sand.

A nearly allied species is the American shell, *C. rigida*, Sowerby; but the present is a larger shell, with sharper distant ribs, crossed at regular distances by slightly elevated lines, and the peritreme is not crenulate. The ribs of *C. rigida* are nodulous from the crossing lines, which are also disposed to rugosity throughout. In *C. bicolor* the lines are particularly regular and uniform in their characters.

178. *CANCELLARIA lamellosa*, Hinds, l. c. p. 49, (Plate XII, fig. 15, 16.) Testâ ovatâ, acuminatâ, pallidâ, contabulatâ; anfractibus senis, ventricosis, lamellis numerosis confertis crenatis in loco costarum instructis; aperturâ trigonâ; labro incrassato, reflexo; columellâ plicis tribus parvis; umbilico magno; canali subnullo.

Inhab. This species has an extensive habitat, being found in several places in the Indian Archipelago and at the Cape of Good Hope. At the latter a single specimen was obtained on the L'Agulhas Bank in seventy fathoms; also at Ceylon and in the Straits of Macassar.

Corresponding to the customary situation of the ribs, this species throws off series of lamellæ, two or more in number, which present a sharp, reflected, crenated margin. These are clustered together in very irregular numbers, sometimes there being only two, or perhaps even one; but as the shell advances in age they are usually crowded together in some numbers, and this remarkable and elegant character will readily distinguish it from any other species.

179. *CANCELLARIA antiquata*, Hinds, l. c. p. 49, (Plate XII, fig. 17, 18.) Testâ ovatâ, acuminatâ, contabulatâ, albidâ; anfractibus septenis, planulatis, costatis, transversim striatis; costis acutis, supernè spinis cavis desinentibus; aperturâ trigonâ; labro reflexo; columellâ plicis tribus minimis; umbilico maximo.

Inhab. New Guinea. In twenty-two fathoms, coarse sand.

A species nearly allied to the singular *C. trigonostoma*, having a similar relative situation of the whorls to each other, and a very large umbilicus. This is a smaller shell, with a shorter spire, and sutures less profound.

FAMILY—OLIVACEÆ.

ANCILLARIA. *Lamarck.*

180. *ANCILLARIA mamillata*, (Plate XI, fig. 7, 8.) Testâ elongatè ovatâ, aurantiaco-fulvâ; anfractu ultimo supernè et ad basin saturatiùs fasciato; spirâ valdè mamillæformi, sulcato, veluti ex machinâ tornato, apice mucronatâ, anticè et ad dextram callo rugoso insigniter indutâ; labro infernè denticulato, columellâ callosâ albâ.

Inhab. Straits of Malacca. In seventeen fathoms, in the mud.

This species is not unlike *A. rubiginosa*, except that the spire is very remarkably nipple-shaped, and grooved in a manner so regular as to appear to have been subjected to a lathe; at the extremity it is mucronate, and a thick rugose callus is spread over its anterior and right side.

FAMILY—MARGINELLACEÆ.

MARGINELLA. *Lamarck.*

Section I. Phænospira.

181. *MARGINELLA nodata*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 6, 7.) Testâ elongatè ovatâ vel subfusiformi, luteo-olivaceâ, lineis nigris subflexuosis longitrorsum ornatâ, punctis concoloribus conspersis: spirâ elongatâ, inconspicuè plico-costatâ; labro incrassato, intùs denticulato; columellâ quadripliatâ.

Inhab. Cape Blanco, west coast of Africa. In twelve to fifteen fathoms, sand.

Whilst this species possesses the general aspect and character of *M. Cleryi*, it differs in being somewhat larger, more broadly shouldered, having the longitudinal lines studded at intervals with dark spots, and which are somewhat regularly disposed in the transverse direction, and lastly, in having the spire less elongated, and furnished with rather indistinct pliciform ribs.

182. *MARGINELLA musica*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 8, 9.) Testâ ovatâ, cinereo-olivaceâ, lineis nigris transversim ornatâ; spirâ retuso-conicâ; labro paululum incrassato, intùs lævi; columellâ quadripliatâ.

Inhab. Cape Blanco, west coast of Africa. In thirty-three fathoms, sand.

Readily distinguished from any species hitherto described by the transverse, somewhat distant, and regularly disposed dark lines.

183. *MARGINELLA Belcheri*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 1, 2, 3, 4, 5.) Testâ concinnè ovatâ, albâ, lineis eleganter punctatis, raris, frequentioribus, vel confertis transversim dispositis, interdum albo fasciatâ; spirâ mediocri, conicâ; labro incrassato, albo, propè medium subdilatato, intùs lævi; columellâ quadriplicatâ.

Inhab. Cape Blanco, west coast of Africa. In twelve to fifteen fathoms, sand.

This very beautiful species displays a considerable variation in the character of its markings. In some individuals the exterior is nearly white, with a few scattered transverse lines, composed of elegant minute dottings, and these are perhaps the older shells; from this they gradually become more and more covered, till in some the whole surface is quite darkened. In this latter case, irregular lines become conspicuous in the longitudinal direction. In many specimens the transverse lines are separated by intervals which permit the ground colour of the shell to show through like milk-white bands. The outer lip seems to retain in all cases its uniform white colour, and at its upper part is slightly emarginate, but becomes thickened at and a little beneath the centre.

184. *MARGINELLA scripta*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 16, 17.) Testâ parvâ, retusè ovatâ, cinereâ, lineis nigris longitudinalibus valdè angulatis (zig-zag) sparsim litteratâ; spirâ retusissimâ; labro intùs denticulato; columellâ quinqueplicatâ, plicis duabus superioribus transversis.

Inhab. Straits of Macassar. In eleven to fourteen fathoms, coarse sand.

A pretty, neat, small species, covered with characteristic zig-zag lines, rather broadly shouldered, and having five folds on the columella.

185. *MARGINELLA sapotilla*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 10, 11.) Testâ elongatè ovatâ, ferè subcylindræo-ovatâ, cinereâ vel glaucescente, concolore; spirâ retuso-conicâ; aperturâ intùs fuscâ; labro incrassato, recto, albo, posticè fulvo, intùs lævi; columellâ quadriplicatâ.

Inhab. Panama. In five to thirteen fathoms, sandy mud.

The American analogue of *M. prunum*, than which it is of smaller size, more cylindrical in shape, whence results its straight outer lip, less fullness and roundness of the shoulders, but without any disposition to that obscure banding which is visible in some specimens of *M. prunum*. Both species present a rich brown colour within the aperture, and in general appearance they are remarkably alike.

186. *MARGINELLA vitrea*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 18, 19.)

Testâ coniformi, hyalinâ, nitidâ ; spirâ valdè retusâ ; labro paululùm incrassato et reflexo, intùs lævi ; columellâ plicis quatuor gracilibus.

Inhab. West coast of Africa.

187. *MARGINELLA fusiformis*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 20, 21.) Testâ fusiformi, albidâ vel pallidè corneâ ; spirâ elatâ, obtusâ ; anfractu ultimo gradatim attenuato ; labro paululùm incrassato, intùs lævi ; aperturâ lineari ; columellâ quadriplicatâ.

Inhab. Straits of Malacca ; in seventeen fathoms, mud.

This species departs so far from the usual outline of the genus, as to become decidedly fusiform. The recent shell is most probably of a delicate horn colour, though the prevailing number of our specimens are white, shining, and glassy, and there seems little doubt that these have lost their original colour.

Section II. CRYPTOSPIRA.

188. *MARGINELLA tricineta*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XII, fig. 12, 13.) Testâ obeso-ovatâ, cinereo cœrulente, fusco trifasciatâ ; labro incrassato, luteo, intùs lævi ; columellâ sexplicatâ, ad basin albâ ; plicis tribus superioribus transversis ; supremâ paululùm obsoletâ.

Inhab. Straits of Macassar ; in eleven fathoms, coarse sand.

A fine species very typical of this section, and distinguished by its three dark girdling bands. Of the six folds which are supported by the columella, the three, and perhaps also four, superior are horizontal, whilst those inferior become oblique. The highest fold is not so boldly produced as the others, and is somewhat removed from them. It is worthy of remark that most of the species from the above locality have more than four folds on the columella.

189. *MARGINELLA blanda*, Hinds, Proceed. Zool. Soc. 1844, March, (Plate XIII, fig. 14, 15.) Testâ ovatâ, tenui, sardonichiâ, obsoletè fasciatâ ; spirâ vix occultâ, pallidâ ; labro subincrassato et reflexo, intùs lævi ; columellâ albidâ, sexplicatâ, plicis superioribus evanidis.

Inhab. Cape Blanco, west coast of America, in twelve to fifteen fathoms.

In outline slightly elongated and ovate, thin, of a delicate cornelion, with faint bandings ; the labrum very little thickened and reflexed, of the same colour as the rest of the shell ; aperture equal in length to the shell, the columella supporting six folds and of a pale colour ; the superior folds scarcely perceptible.

ERATO. *Risso.*

190. *ERATO vitellina*, (Plate XIII, fig. 22, 23.) Testâ obeso-ovatâ, cœruleo-rufescente ; spirâ retusâ ; labro incrassato, grossè 7-dentato ; columellâ granulatâ ; aperturâ infernè dilatâtâ, ad basin effusâ.

Inhab. Bay of Magdalena, California ; in seven fathoms, among sand.

This is the largest species hitherto described, but is not otherwise very prominently distinguished. It possesses the peculiar livid colour common to most of the species, varying to white near the sutures and at the back of the lip; the latter is of a horny-green colour.

RINGICULA. *Deshayes.*

191. *RINGICULA caron*, Hinds, Proceed. Zool. Soc. 1844, (Plate XVI, fig. 15, 16.) Testâ ovatâ, acuminatâ, striatâ, nitidâ; anfractibus rotundatis, ultimo subtransverso, rotundato, distanter striato; spirâ exsertâ; aperturâ subabbreviatâ; labro corrugato.

Inhab. Straits of Malacca; in seventeen fathoms, among mud.

The species of *Ringicula* are not readily identified by description, but the above may be distinguished from a few others which I have described in the Proceedings of the Zoological Society, by its proportionately lengthened spire, the shortening of the last whorl, whereby its greatest breadth is probably in the transverse direction, and by being grooved with striæ situated at regular distances from each other.

OVULUM. *Lamarck.*

192. *OVULUM dorsuosum*, (Plate XVI, fig. 3, 4.) Testâ elongato-ovatâ, lævissimè striatâ, utrinque subacuminatâ; dorso suprâ mediam rotundato, infernè attenuato; labro anticè planulato, sulcato; columellâ infernè subexcavatâ, intùs plicâ longitudinali munitâ.

Inhab. Straits of Malacca; in nine fathoms, among mud.

193. *OVULUM gallinaceum*, (Plate XVI, fig. 1, 2.) Testâ solidâ, retusâ, ovatâ, albidâ, nitidâ, dorsò supernè angulatâ fasciâ transversâ pictâ, infernè angustatâ; spirâ minutissimè granulatâ; labro sulcato; columellâ ad dimidium inferiorem sulcatâ; aperturâ angustâ, lineari.

Inhab. New Guinea; Straits of Macassar; in from five to seventeen fathoms.

A small species adorned on the angle at its back with a single transverse brown band. The aperture is very contracted, and the outer lip, together with the inferior half of the columella, is delicately sulcated. Minute granulations cover the spire, but they are scarcely visible to the naked eye.

194. *OVULUM corrugatum*, (Plate XVI, fig. 5, 6.) Testâ parvâ, pallidè virente, dorsò corrugatâ, lineâ medianâ conspicuâ; aperturâ angustâ, ad basin fusco pictâ.

Inhab. New Guinea; in from five to twenty-one fathoms, among soft mud.

FAMILY—SCALARIACEÆ.

SCALARIA. *Lamarck.*

195. *SCALARIA glabrata*, Hinds, Proceed. Zool. Soc. 1843, p. 124. Testâ elongatâ, politâ; anfractibus decenis, rotundatis, ferè disjunctis; costis membranaceis, vicinis suprâ et infrâ connatis, propè suturam dilatatis; anfractu ultimo decemcostato; aperturâ ovali; umbilico peritremate tecto.

Inhab. Amboina; Straits of Macassar; Straits of Malacca. On the muddy floor, in from ten to seventeen fathoms.

The specimens were all obtained without the animal, but the mottled appearance which they present seems to indicate, that when recent they were most probably of a light brown colour.

196. *SCALARIA Dianæ*, Hinds, l. c. p. 125. Testâ ovatâ, acuminatâ, politâ; anfractibus septenis connatis, costis valdè alæformibus ornatis; anfractu ultimo hexacostato, ad basin obtusè carinato; aperturâ, rotundatâ, internè subtruncatâ; peritremate extûs alato; umbilico nullo.

Inhab. Gulf of Nicoya; from thirty-six fathoms, among mud.

197. *SCALARIA vestalis*, Hinds, l. c. p. 125. Testâ ovato-elongatâ, pallidâ; anfractibus nonis rotundatis, connatis; costis numerosis, tenuibus, sparsim varicosis, lineis transversis eleganter cancellatis; aperturâ ovali; umbilicatâ.

Inhab. New Guinea; from seven fathoms, among mud.

An elegant cancellated species, with numerous fine ribs, which, when becoming varicose, are slightly spined above. The number of ribs on the last whorl appears little liable to fluctuation, and they become a very useful and valuable character in the discrimination of the species. In *S. vestalis* their number is twenty-two.

198. *SCALARIA suturalis*, Hinds, l. c. p. 125. Testâ elongatâ, pallidè fuscâ; anfractibus decenis, connatis; costis numerosis, parvis, approximatis, lineis transversis decussatis, subdistanter varicosis; suturâ et anfractu ultimo ad basin carinato; aperturâ subrotundâ; umbilico nullo.

Inhab. Straits of Malacca; from seventeen fathoms, among mud.

An elongated shell; also somewhat cancellated by lines traversing the numerous small ribs. At intervals of something less than the volution of each whorl a thick rounded varix is formed; a keeled line also occupies the most inferior portion of the whorl, close to the suture. The specimens had been left by the animal some time previous to being captured, and though they are not in very good condition, there still remains a disposition to a dark brown banding.

199. *SCALARIA aciculina*, Hinds, l. c. p. 125. Testâ elongatâ, politâ; anfractibus decenis subdisjunctis; costis rotundatis, supernè angulatis; anfractu ultimo decemcostato; aperturâ ovali; umbilico parvo.

Inhab. West coast of intertropical America.

200. *SCALARIA creberrima*, Hinds, l. c. p. 125. Testâ ovato-elongatâ, albidâ; anfractibus septenis, connatis, costis tenuibus creberrimè instructis; aperturâ ovali; umbilico nullo.

Inhab. North coast of New Guinea; from seven fathoms, among mud.

The whorls are closely set with ribs, in numbers almost too great to be enumerated.

201. *SCALARIA porrecta*, Hinds, l. c. p. 126. Testâ ovato-elongatâ, fuscâ, politâ; anfractibus octonis, connatis, supernè rotundatis; costis acutis, supernè aculeatis; anfractu ultimo septemdecemcostato, pallidè fasciato; aperturâ ovali, ad basin truncato; umbilico nullo.

Inhab. Straits of Malacca; from seventeen fathoms, among mud.

202. *SCALARIA vulpina*, Hinds, l. c. p. 126. Testâ elongatâ, fuscâ; anfractibus nonis rotundatis, connatis; costis obtusis, rotundatis, lineis elevatis decussatis; suturâ profundâ; anfractu ultimo novemcostato, ad basin obtusè carinato; aperturâ rotundâ; umbilico nullo.

Inhab. Island of Quibo, Veragua, Central America; from thirty fathoms, among mud; the temperature below being 58°, and at the surface 82°.

A pretty little shell, which, under first impressions, the propriety of placing in *Scalaria* might be called in question, though it possesses the characters assigned to the genus. Still there is a difference of character and appearance which creates a momentary hesitation. But, together with its deep suture, the basal whorl is provided at its inferior surface with a blunt keel, which is also to be met with in a few other species of *Scalaria*, but I am not aware in any other genus, and which induces me to place it here without the least doubt as to the propriety of its location.

FAMILY—TURBINACEÆ.

SOLARIUM. *Lamarck*.

203. *SOLARIUM purpuratum*, Hinds, Proceed. Zool. Soc. 1844, p. 25, (Plate XIV. fig. 1, 2.) Testâ conico-orbiculatâ; anfractibus subtumidis, spiræ longitudinaliter obliquè plicatis, supernè sulcis duabus cinctis, maculis rufo-fuscis subgeminis ornatis, areâ medianâ pallidè cinereâ; ad peripheriam carinatâ articulatè maculatâ; ad basin strigis rufo-fuscis radiatim dispositis; umbilico subpatulo, crenis parvis albidis.

Inhab. —?

The base is distinctively ornamented with reddish-brown rays, and the square spots on the whorls are somewhat twin in their distribution, since they occupy corresponding situations in the two upper narrow areas.

204. *SOLARIUM perdix*, Hinds, l. c. p. 22, (Plate XIV. fig. 3, 4.) Testâ conoideâ, tenui, lævigatâ, pallidâ; anfractibus subtumidis, supernè cingulo unico divisus, spiræ minutè plico-striatis; ad peripheriam angulatâ tricarinatâ, carinâ mediâ prominente, majore, creniferâ; cingulo et carinis maculis rufis subquadratis ornatis; umbilico patulo, crenulis parvis albis cincto.

Inhab. Ceylon; north-west coast of Australia.

This possesses the general contour of *S. perspectrum*, but is thinner, the whorls are slightly tumid, and furnished above with a flat smooth girdle, ornamented with somewhat distant rufous spots. The most prominent keel is characteristically covered with small tubercular crenulations. When placed on its base, the apex is much inclined and the general direction oblique. The umbilicus is somewhat less patulous than in *S. perspectrum*, and neatly encircled with numerous white and smaller crenations. The umbilical space is destitute of ribs, folds, or keels, bearing alone the marks of the striæ of growth and a thin horny epidermis.

205. *SOLARIUM placentale*, Hinds, l. c. p. 22, (Plate XIV. fig. 5, 6.) Testâ discoideâ, pallidè fulvâ, lævigatâ; spirâ valdè depressâ; anfractibus planulatis, ordinatè spiraliter striatis; ad peripheriam obtusè unicarinatâ, subtus striatâ; carinâ crenulatâ; ad basin subtumidâ; aperturâ triangulari; umbilico valdè patulo, crenis tuberculatis subdistantibus armato.

Inhab. Bay of Magdalena, California; in seven fathoms, sand.

206. *SOLARIUM quadriceps*, Hinds, l. c. p. 23, (Plate XIV. fig. 7, 8.) Testâ orbiculato-discoideâ; anfractibus quadriseriatim cingulatis; cingulis tuberculis quadratis, planulatis, approximatis instructis, inferiore majore, et cum superiore rufo picto; ad basin tumidâ, areâ medianâ radiatim plicatâ; umbilico patulo, crenis magnis fuscis cincto; areâ umbilicali lævi.

Inhab. Bay of Panama; in five fathoms, among mud.

This species is very closely allied to *S. granulatum*, from which it will be found to differ in the character and relative proportion of the granular girdles. A single and perhaps rather small specimen was alone obtained, which is somewhat more discoid than the above species; four girdles traverse each whorl, of which the inferior is the largest, and the tubercles closely set, flattened, and obliquely square; the umbilicus is rather more expanded, and the marginal tubercles are of a similar size, but coloured of a reddish brown. *S. quadriceps* is an American shell, and *S. granulatum* an Asiatic.

207. *SOLARIUM asperum*, Hinds, l. c. p. 23, (Plate XIV. fig. 9, 10.) Testâ discoideâ; spirâ retusâ; anfractibus supernè planulatis, infernè rotundatis, ubiquè cingulis parvis numerosis instructis; cingulis tuberculis parvis asperatis; umbilico valdè patulo; areâ angustâ, lævi.

Inhab. Straits of Macassar; in eleven fathoms, coarse sand.

A single dead specimen only was obtained, destitute of colour and choked with sand. It is remarkable from its rounded base and its very expanded umbilicus, which is proportionately larger than in any other species. In *S. perspectivum* the umbilicus is equal to a third of the diameter, but in the present species it is two-fifths.

208. *SOLARIUM cælatum*, Hinds, l. c. p. 25, (Plate XIV. fig. 11, 12.) Testâ parvâ, valdè discoideâ, nitidâ, fuscâ; spirâ nullâ; anfractibus propè suturam uniseriatim tuberculatis, mediò eleganter radiatim plico-striatis; ad peripheriam carinis duabus obtusis tuberculatis; ad basin rotundatâ; aperturâ subrotundâ; umbilico valdè patulo, crenis parvis numerosis armato.

Inhab. Straits of Macassar; in ten fathoms, among coarse sand.

209. *SOLARIUM dealbatum*, Hinds, l. c. p. 24, (Plate XIV. fig. 13, 14.) Testâ conico-trochiformi, albâ; anfractibus planulatis, quadriseriatim granulato-costatis; cingulo ultimo paulò majore, prominulo; umbilico coarctato, crenis parvis instructo; arcâ umbilicali multicostatâ; aperturâ rotundatâ.

Inhab. Manila.

This species may be readily distinguished from *S. variegatum* by its uniform colour and by the several ribs which cross the umbilical space, all of which are of equal size; from *S. cylindraceum* by its decided conical shape, and the characters detailed above observable in the inferior girdle.

It is unquestionable that a sound division of the genus may be effected, by taking *S. variegatum* as the type of a new group; and this opinion rests on the conformation of the foot of the animal, decidedly sessile eyes, and very peculiar operculum of this species. But in trying to effect this I have met with the following genera, all of which have been advanced for sections of the genus as left by Lamarck:—*Omalaxis*, Deshayes; *Bifrontia*, Deshayes; *Helicites*, Schlotheim; *Cirrus*, Sowerby; *Euomphalus*, Sowerby; *Schizostoma*, Bronn; *Solariella*, Searles Wood; *Torinia*, Gray; and not having before me the materials for deciding their respective merits, and being averse to treating the difficulty as a gordian knot by the erection of another genus, I am compelled to leave the subject as I found it.

210. *SOLARIUM fragile*, Hinds, l. c. p. 24, (Plate XIV. fig. 15, 16.) Testâ orbiculato-discoideâ; anfractibus quadriseriatim tuberculato-cingulatis; cingulo supremo et ultimo fusco pictis, medianis margaritaceis; ad peripheriam angulatâ, crenulatâ; basi tumido; umbilico patulo, crenis parvis albis acutis cincto; arcâ umbilicali lævi; aperturâ triangulari.

Inhab. North coast of New Guinea. In seven fathoms, sand.

211. *SOLARIUM fulvum*, Hinds, l. c. p. 24, (Plate XIV. fig. 17, 18.) Testâ orbiculato-discoideâ, solidulâ, fulvâ; spirâ retusâ; anfractibus multiseriatim granuloso-cingulatis, medianis minoribus; ad peripheriam obtusâ, carinis duabus, tertiâ minore intermediâ; basi rotundatâ, seriatim

granulatâ ; umbilico mediocri, crenis concoloribus cincto ; areâ umbilicali læviter unicostatâ ; aperturâ subquadratâ.

Inhab. New Guinea.

212. *SOLARIUM virgatum*, Hinds, l. c. p. 24, (Plate XIV. fig. 19, 20.) Testâ orbiculato-discoideâ ; spirâ retusâ ; anfractibus quadriseriatim granulatis, cingulo supremo et ultimo rufis, medianis albis ; ad peripheriam obtusis, duabus carinis crenulatis ; basi rotundatâ, seriatim granulatâ ; umbilico mediocri, crenis albis cincto, extûs cingulo rufo tuberculato ; aperturâ angulatâ.

Inhab. New Guinea.

213. *SOLARIUM fenestratum*, Hinds, l. c. p. 25, (Plate XIV. fig. 21, 22.) Testâ orbiculato-discoideâ ; spirâ retusâ ; anfractibus multiseriatim granulatis, longitrorsum striatis ; suturâ canaliculatâ ; ad peripheriam rotundatâ, carinis tribus subæqualibus ; basi rotundatâ, seriatim granulatâ ; umbilico subpatulo, crenis parvis numerosis cincto ; areâ umbilicali carinis duabus parvis ; aperturâ rotundatâ.

Inhab. New Guinea.

As the only specimen obtained was without the animal and deprived of colour, and had evidently been some time lying in the mud, the cancellation is perhaps considerably more distinct than in the recent state. It is one of those which approach very closely to the unarmed species of *Delphinula*.

DELPHINULA. *Lamarck*.

214. *DELPHINULA Reevisiana*, (Plate XVI. fig. 17.) Testâ subdiscoideâ, cancellatâ, muticâ ; spirâ retusâ ; anfractibus rotundatis, lineis transversis carinatis, longitudinalibus sinuosis decussatis ornatis ; interstitiis longitudinaliter quadratis ; aperturâ transversim subovali.

Inhab. Straits of Malacca.

The specific name is a compliment to Mr. Lovell Reeve, the industrious author of the *Conchologia Iconica*.

ROTELLA. *Lamarck*.

215. *ROTELLA sagittata*, (Plate XVI. fig. 18, 19.) Testâ orbiculari, depresso-conoideâ, politâ, virente, nigro fasciatâ, maculis albis angulatis articulatâ ; ad basin sordidâ.

Inhab. Straits of Macassar. In the sands of the beach in the vicinity of the town of Macassar, and in considerable numbers.

Like other species of *Rotella*, this is disposed to vary in its markings ; in some there is no appearance of fasciation, but it, however, exists in the great majority.

FAMILY—PATELLACEÆ.

PATELLA. *Linnaeus*.

216. *PATELLA insessa*, Hinds, Ann. Nat. Hist., vol. x. p. 82. Testâ conicâ, ovali, fuscâ, tenuiter transversim striatâ, intùs albâ; apice maculis albis ornato.

Inhab. San Diego, California. On the sea-weed.

A small horny brown shell, remarkable for the white markings on the apex, usually three, sometimes four in number, the central being rather the larger. It was always found imbedded in the fronds of a *Laminaria*, which it was often necessary to cut with a knife before the shell could be liberated.

PATELLOIDA. *Quoy et Gaimard*.

217. *PATELLOIDA depicta*, Hinds, Ann. Nat. Hist. v. x. p. 82. Testâ minimâ, lineari, diaphanâ, albâ, lineis rufis apice radiantibus; lateribus compressis; longâ quadruplò quoad longitudinem.

Inhab. San Diego, California. Found in considerable numbers on the surface of a *Zostera*.

Small, delicate, and fragile, of a whitish colour, with irregular brown rays diverging from the apex, about eight in number on each side, and sometimes disposed to fork; anteriorly, clouded with a dark spot; and compressed at the sides, making the length four times greater than the breadth.

FAMILY—CALYPTRACEÆ.

CREPIDULA. *Lamarck*.

218. *CREPIDULA solida*, (Plate XVI. fig. 7, 8.) Testâ ovali, elevatâ; apice mediano, postico; extùs epidermide fuscâ lævi, intùs rufâ; septo albo solidulo margine recto.

Inhab. Bodegas, California. In six to ten fathoms, attached to dead and living shells and to each other.

The mouth is nearly circular, apex elevated, and the exterior covered with a smooth brown epidermis. Within of a reddish brown, the internal plate small, solid, and with a straight margin, upper surface and neighbouring parts white, beneath, and sometimes with the margin, partaking of the colour of the shell.

FAMILY—CHITONACEÆ.

CHITON. *Linnaeus*.

219. CHITON *magdalenensis*, (Plate XIX. fig. 1.) Testâ elongatè ovali, subelevatâ, mediò pallidâ seu subcarnosâ; valvarum areâ laterali alæformi radiatim corrugato-sulcatâ, transversim grossè lineatâ, medianâ et anticâ longitudinaliter corrugato-sulcatis; ligamento scabriusculo.

Inhab. Bay of Magdalena, California. In considerable numbers on the rocks.

In shape elongated, and, the middle valves being scarcely of greater breadth than the others, with the margins somewhat linear. The lateral spaces, and which with much propriety and convenience might be called *alæ* or wings, are crossed by rude lines which appear to indicate periods of cessation of growth. The character of the colouring of the dorsal ridge is disposed to vary. In an individual of this species the phenomenon occurred of the existence of nine valves; and though Chitons are not indisposed to diminish the number by one or more, it seems far less frequent that they should increase them, as this is the only instance within my experience.

The number of species of *Chiton* on the West coast of America is very great, and they extend throughout its vast extent from Chili to a high northern latitude. Without doubt they occur farther in both directions, but I only speak of our own experience. They most usually abound in numbers, but are limited in their geographic range. Those of the coasts are nearly always distinct from those of deep water. So very prone are they to restrict themselves to narrow portions of the coast, that it would be exceedingly easy to convey a close idea of any particular locality by pointing out the species inhabiting it. Some of the southern species are rather disposed to extend their range, but the great mass are excessively local.

FAMILY—NERITACEÆ.

NERITINA. *Lamarck*.

220. NERITINA (*Nerita*) *Reclusiana*, Le Guillon, Revue Zool. Nov. 1841.

Nerita Keraudreni, Le Guillon, l. c. Nov. 1841.

Neritina Armstrongiana, Hinds, Ann. Nat. Hist. vol. x. p. 82.

FAMILY—HELICACEÆ.

HELIX. *Linnaeus.*

221. *HELIX adustus*, (Plate XIX. fig. 11.) Testâ umbilicatâ, depressâ, fuscâ; anfractibus quatuor, appressis; spirâ subplanulato-depressâ; aperturâ subobliquè lunari; peritremate crassiusculo, reflexo.

Inhab. New Ireland. Among the fallen and decaying leaves on the shores of Port Carteret.

222. *HELIX squalus*, (Plate XIX. fig. 12.) Testâ umbilicatâ, globosâ, tenui, corneâ, undiquè minutissimè scabrâ; anfractibus quinque, ultimo magno, ventricoso; aperturâ magnâ, lunari; peritremate tenui, acuto, reflexo, columellam ferè obtegente.

Inhab. New Ireland. In society with the preceding.

The surface is very minutely scabrous, apparently produced by the crossing at an angle of numerous very fine lines. This circumstance has suggested the specific name.

223. *HELIX pyxis*, (Plate XIX. fig. 10.) Testâ imperforatâ, elatâ, diaphanâ, solidulâ; anfractibus quatuor rotundatis, ultimo mediò carinato; aperturâ compressè lunari; peritremate acuto, reflexo.

Inhab. — ?

FAMILY—MELANIACEÆ.

MELANIA. *Lamarck.*

224. *MELANIA fumosa*, Hinds, Ann. Nat. Hist. v. xiv. p. 8, (Plate XV. fig. 11, 12.) Testâ elongatâ, crassiusculâ, lævigatâ, olivaceo-fuscâ, unicolore, vel junioribus infrâ suturam strigis longitudinalibus rufis ornatâ; anfractibus paulisper rotundatis, supernè latè subconcauè coarctatis, lineis impressis sparsim et obsoletè cinctis; spirâ erosâ apud anfractum quartum; aperturâ cærulescente.

Inhab. New Ireland. In the streams about Port Carteret.

225. *MELANIA aspirans*, Hinds, l. c. p. 8, (Plate XV. fig. 9, 10.) Testâ elongatè subulatâ, lævigatâ, fuscâ, unicolore; anfractibus numerosis, subplanulatis, lineis arcuatis incrementi ferè minutè pliciformibus, ultimo ad basin striato; suturâ lineis impressis comitatâ; aperturâ cærulescente; columellâ albidâ.

Inhab. Feejee Islands. In the rivers.

226. *MELANIA Plutonis*, Hinds, l. c. p. 8, (Plate XV. fig. 14.) Testâ pyramidato-subulatâ,

subturrîtâ, lævigatâ, nitidâ, aterrimâ, unicolore ; anfractibus paulisper rotundatis, ultimo magno, rotundato ; aperturâ cærulescente.

Inhab. Feejee Islands. In the rivers.

Very pyramidal in its shape, and the last whorl displays a far greater proportion than is usual ; otherwise its characters are perfectly passive. The apex is erose to the fifth or sixth whorl.

227. *MELANIA figurata*, Hinds, l. c. p. 8, (Plate XV. fig. 13.) Testâ elongatè subulatâ, lævigatâ, politâ, fulvâ : anfractibus numerosis subrotundatis, supernè strigis rufis longitudinalibus, infrâ lineis interruptis transversis seriatim dispositis ornatis, infrâ suturam pliciferis, ultimo ad basin striato ; apice eroso ; aperturâ cærulescente.

Inhab. New Ireland. In the streams.

The ornation of this species is eminently distinguishing ; otherwise it is a smooth, elongated, tawny shell, like many others. The middle and inferior portions of each whorl are adorned with transverse rufous interrupted lines, disposed in regular series round the shell, and present a pretty appearance on its pale yellow semitransparent surface.

228. *MELANIA picta*, Hinds, l. c. p. 8, (Plate XV. fig. 3.) Testâ elongatè subulatâ, fuscâ ; anfractibus numerosis, subplanulatis, plicatis, transversim sulcatis, strigis rufis longitudinalibus ornatis, infrâ suturam uniseriatim tuberculatis ; aperturâ cærulescente.

Inhab. New Ireland. In the streams.

This species closely resembles *M. subulata* of Sowerby's "Genera," not of Lamarck ; the figure there given does not represent some of the characters dwelt on in the above description, and I am not aware that a diagnosis anywhere exists.

229. *MELANIA luctuosa*, Hinds, l. c. p. 9, (Plate XV. fig. 1.) Testâ subulatâ, turritâ fuscâ ; anfractibus planulatis, ferè subconcavis, transversim lineis impressis cinctis, strigis rufis longitudinalibus interruptis ornatis ; spirâ paulisper erosâ ; aperturâ cærulescente.

Inhab. Feejee Islands. In the rivers.

So contracted are the whorls here as in some cases to be not only flattened but even concave, particularly towards the last whorl.

230. *MELANIA perpinguis*, Hinds, l. c. p. 9, (Plate XV. fig. 2.) Testâ elongatâ, fuscâ, strigis rufis longitudinalibus plerumque ornatâ ; anfractibus rotundatis, subturritis, lineis transversis impressis exculptis ; spirâ subplicatâ, apud extremitatem erosâ ; aperturâ cærulescente, ad peripheriam ustulatâ.

Inhab. Feejee Islands. In the rivers.

231. *MELANIA occata*, Hinds, l. c. p. 9, (Plate XV. fig. 5.) Testâ ovatâ, elongatâ, lutescente ; anfractibus paucis, rotundatis, exaratis, liris intermediis angustis acutis ; spirâ apud anfractum quartum erosâ ; aperturâ cærulescente.

Inhab. River Sacramento, California.

The rounded whorls are ploughed into numerous furrows, and the intervening ridges are comparatively narrow and keel-shaped; the lower part of the aperture is somewhat dilated, and slightly disposed to elongate in the manner of *Io*.

232. *MELANIA mæsta*, Hinds, l. c. p. 9, (Plate XV. fig. 4.) Testâ ovatâ, elongatâ, fuliginê, infrâ epidermidem albidâ; anfractibus rotundatis, supernè angulatis et excavatis, transversim lineis impressis striatis; spirâ apud extremitatem erosâ; aperturâ ustulatâ, ad basin subtruncatâ.

Inhab. Feejee Islands. In the rivers.

The slightly concave area of the whorl beneath the suture, which occurs in this species, is shared with a few others. In the present, it influences the shape of the aperture, straightens the outer lip, provides it with an angle above, and truncates it below. The margins of the aperture have the colour of burnt umber.

233. *MELANIA verrucosa*, Hinds, l. c. p. 9, (Plate XV. fig. 7, 8.) Testâ subulatâ, subturritâ, luteâ; anfractibus octonis planulatis, longitrorsum obtusè plicatis, lineis tribus transversis intersectis, harum intervallis obtusis, quadratis, tuberculosis; apice vix eroso; aperturâ elongatâ, lutescente.

Inhab. New Ireland. In the streams.

234. *MELANIA fulgurans*, Hinds, l. c. p. 9, (Plate XV. fig. 6.) Testâ obeso-subulatâ, lævigatâ, politâ, lutescente, strigis rufis angulatis fulmen simulantibus confertâ; anfractibus decenis subrotundatis; spirâ læviter plicatâ, exsertâ, vix erosâ; aperturâ ovali, cærulescente.

Inhab. New Ireland. In the streams.

Few species of *Melania* have the pretensions to beauty of this. The shell is subulate, with the inferior whorls obese, smooth, and polished; the whorls about ten in number and slightly rounded; those towards the apex indistinctly plicated; spire exserted and scarcely eroded. The base colour is a pale yellow, densely crowded with transverse angular dark red markings.

235. *MELANIA florata*, Hinds, l. c. p. 10, (Plate XV. fig. 22.) Testâ ovato-elongatâ, politâ, corneâ, tessellatâ; anfractibus paucis, subrotundatis, seriebus tribus macularum rufarum quadratarum eleganter ornatis; serie supremâ præcipuè maximâ, intermediâ minimâ; anfractu ultimo ad basin punctato; spirâ erosâ; aperturâ corneâ.

Inhab. New Ireland. In the streams.

This also is a pretty species with a pale surface, each whorl being ornamented by three series of transverse reddish spots, of which the superior is the largest and most deeply coloured; the two others are punctuations of reddish spots, the inferior being intermediate in size. Very delicate striæ, not easily recognizable, traverse the shell transversely.

236. *MELANIA gaudiosa*, Hinds, l. c. p. 10, (Plate XV. fig. 19.) Testâ ovato-elongatâ, lævigatâ, politâ, corneâ; anfractibus octonis subplanulatis, unicoloribus; spirâ obliquè plicatâ, ad extremitatem erosâ; aperturâ ovali, corneâ.

Inhab. New Ireland. In the streams.

Approaches somewhat closely, in general character, the American shell, *M. plicifera*.

237. *MELANIA pyramidata*, Hinds, l. c. p. 10, (Plate XV. fig. 20.) Testâ elongatè subulatâ, gracili, nitidâ, corneâ; anfractibus decem subplanulatis, transversim distanter striatis, supernè infrâ suturam fusco angustè fasciato, ultimo ad basin puncticulato; spirâ versùs extremitatem plicatâ, erosâ; aperturâ ovali.

Inhab. New Ireland. In the streams.

238. *MELANIA latebrosa*, Hinds, l. c. p. 10, (Plate XV. fig. 21.) Testâ ovatâ, elongatâ, sordidè fuscâ; anfractibus perpaucis, rotundatis, lineis impressis transversis instructis, erosio usque ad penultimum; aperturâ parvâ, ovali, cærulescente.

Inhab. New Ireland. In the streams.

A small obese shell, with little to distinguish it beyond its few rounded whorls furrowed transversely with parallel impressed lines, and its comparatively small, neat, oval aperture.

239. *MELANIA pugilis*, Hinds, l. c. p. 10, (Plate XV. fig. 17, 18.) Testâ spinosâ, elongatè ovatâ, fulvâ; anfractibus circâ novem, rotundatis, supernè spiniferis, infrâ suturam serie unicâ macularum rufarum, infernè seriebus duabus minoribus cinctis, ultimo ad basin multiseriato, spinis distantibus, ad peripheriam quinque, truncatis, lineâ angulatâ alligatis; spirâ subtruncatâ; aperturâ oblique ovali, subattenuatâ, albidâ.

Inhab. New Ireland. In the streams.

Shell ovate, pale yellow; whorls ventricose, spiniferous, of an uniform colour in the middle, above adorned with a single series of red markings, longitudinal or nearly square, below with two series of smaller spots placed on bands slightly paler than the neighbouring shell; the last whorl exhibits at its base several series of these articulated bands; the spines are distant and truncated to near their base; about five occupy the circumference of a whorl, and an angular line connects each with its neighbours; the spire has scarcely lost more than its extreme whorl by erosion, and the aperture is white, and in a slight degree attenuated at its base.

240. *MELANIA bellicosa*, Hinds, l. c. p. 11, (Plate XV. fig. 15, 16.) Testâ spinosâ, ovatâ, valdè truncatâ, fuscâ; anfractibus tribus rotundatis, transversim striatis, spiniferis, frequenter erosio; spinis aculeiformibus, subrectis, ad basin decurrentibus; spirâ apud anfractum antepenultimum truncatâ; aperturâ elongatè ovali, subfuscâ.

Inhab. Feejee Islands. In the rivers.

Nearly allied to *M. spinulosa*, Lamarck, which is found in the rivers of Timor.

PALUDINA. *Lamarck.*

241. *PALUDINA seminalis*, Hinds, Ann. Nat. Hist., vol. x. p. 83, (Plate XVI. fig. 22.) Testâ retusè turritâ, solidulâ, corneâ, lævi; apice eroso; anfractibus quatuor; aperturâ cærulescente, effusâ.

Inhab. Rio Sacramento, California.

Distinguished from *P. nuclea*, Lea, which is from a neighbouring locality, by its somewhat smaller size, bluish instead of white mouth, having one whorl less, the aperture more expanded, and absence of the black line round the mouth, which when present is so good a character in his shell, but which, in my numerous specimens of it, I do not find at all constant, and usually only to be seen in those better developed. *Anodon angulatus* was also found abundant in this river, where it serves the natives as an article of food, and we saw the shells in numbers around their deserted fires. Elsewhere it seems hitherto to be very scarce.

FAMILY—OPERCULACEÆ.

PUPINA. *Vignard.*

242. *PUPINA aurea*, Hinds, Ann. Nat. Hist., vol. x. p. 83, (Plate XVI. fig. 20, 21.) Testâ ovali, nitidâ, aureâ; suturis obsoletis; aperturâ infrâ incisâ, suprâ emarginatâ, dentatâ; fissurâ sursùm ascendente.

Inhab. New Guinea; in the moist soil of the forest.

This and the following species belong to the section of *Pupina* with two notches in the margin of the aperture. The inferior is in all cases a notch of greater or less depth, but the upper is not correctly either notch, fissure, or incision. On the last whorl, near the outer lip, is a tooth, which together form a channel or sinus, and here there is a slight degree of emargination on the lip itself, so that at first appearance there would seem to be much more of a notch than there really is. This is a fine golden-coloured species; the notch is so deep as to become a fissure, and takes an upward and backward direction.

243. *PUPINA mitis*, Hinds, Ann. Nat. Hist., vol. x. p. 83. Testâ ovali, parvâ, nitidâ, brunneâ; suturis obsoletis, lineâ rubrâ monstratis; aperturâ infrâ incisâ, suprâ emarginatâ, dentatâ; fissurâ rectâ.

Inhab. New Ireland; among the rotten wood of dead and procumbent trees.

The appearance of the specimens is different, as they are living or dead shells. The latter are as transparent as glass, but the living are of a reddish brown, or sometimes of a greyish colour. Nor is the reddish line which follows the

suture always very decided, even in the living shells. This is smaller than the foregoing, wants the fine golden colour, and has only a straight notch, for here it is no more.

FAMILY—AURICULACEÆ.

SCARABUS. *Montfort.*

244. SCARABUS *pollex*, Hinds, Ann. Nat. Hist., vol. x. p. 82, (Plate XVI. fig. 9, 10.) Testâ ovatâ, compressâ, fusco-castaneâ, longitrorsum valdè striatâ; striis subarcuatis; anfractu ultimo confusè fasciato.

Inhab. Feejee Islands.

In size it approaches *S. Lessoni*, but is distinguished from it by its coarsely striated surface, and by its different markings. It is larger than *S. castaneus*, of a much darker colour, more striated, and further characterized by the two dark yellowish bands on the upper part of the last whorl.

C O N C H I F E R Æ.

FAMILY—PECTINACEÆ.

PECTEN. *Da Costa.*

245. PECTEN *sericeus*, (Plate XVII. fig. 1.) Testâ orbiculari, plano-subconvexâ, æquiauriculatâ, velutinâ, valvâ sinistrâ planulatâ, propè umbonem subconcavâ, fuscâ, costis viginti-quatuor, lateribus ad angulum planulatis, cum interstitiis velutinis; valvâ dextrâ subconvexâ, pallidâ, costis consimilibus, interdum subgeminis; auriculis æqualibus, rectis, velutinis, plicis duabus obsoletis; intùs albâ.

Inhab. Bay of Panama. In fifty-three fathoms, on a muddy floor. A single specimen only was obtained.

246. PECTEN *floridus*, (Plate XVII. fig. 6.) Testâ orbiculari, plano-subconvexâ, æquiauriculatâ; valvâ sinistrâ planulatâ, propè medium subelevatâ, rufescente sparsim albo maculatâ, costis viginti-duo ad latera compressis, supernè rotundatis cum interstitiis laminis minimis epidermidis transversim striatis; valvâ dextrâ subconvexâ, pallescente, costis quadratis, mediò sulco impressis; auriculis æqualibus, rectis, lævibus, epidermide indutis; intùs albâ, versùs auriculas et margines saturatè fuscâ.

Inhab. San Diego, California. In five fathoms, among mud.

247. *PECTEN passerinus*.*P. asper*. Sow. Jun. Thes. Conch. p. 50.

Inhab. New Guinea. In seven fathoms, on a muddy floor.

A fossil of the Paris basin and of the green sand in England claims priority in Mr. Sowerby's name.

248. *PECTEN rubidus*, (Plate XVII, fig. 5.) Testâ subtrigono-orbiculari, inæqualiter duplo-convexâ, inæquiauriculatâ subtenui; valvâ sinistrâ convexâ, costis parvis numerosissimis, serratis, in fasciculos duarum triumve alternatè aggregatis, rufis, interstitiis pallescentibus; valvâ dextrâ sub-convexâ, albidâ, costis majusculis, aggregatis; auriculis sulcatis, posticâ parvâ, obliquâ; intùs albâ.

Inhab. Alashka, North-west America. At a depth of thirty-three fathoms.

This species has both close geographic and structural relations with *P. islandicus*. Four specimens were obtained at the same depth, and they agree in the different state of convexity of the valves, their tumidness, the somewhat elegant and methodical clustering of the small ribs, and the very small and oblique posterior auricle. The colour, though at first apparently of an uniform rose, is deeper on the ribs than in the interspaces, with concentric bands of the same. None of the specimens approach in size *P. islandicus*.

249. *PECTEN digitatus*, (Plate XVII, fig. 2.) Testâ subtrigonâ, planiusculâ, solidâ, æquiauriculatâ, pallidâ, sanguineo transversim nubeculatâ; valvis consimilibus, costis novem rotundatis sulcatis; auriculis sulcatis; umbonibus subplanulatis, lævigatis; marginibus minutè denticulatis; intùs albâ.

Inhab. Bay of Guayaquil. In twenty-three fathoms, mud.

250. *PECTEN fasciculatus*, (Plate XVII, fig. 4.) Testâ latè subtrigonâ, planiusculâ, tenui, inæquiauriculatâ, rufo-violascente albo maculatâ; valvis consimilibus, costis parvis numerosis, eleganter serratis, in fascibus quinque plerumque aggregatis, alteris interstitiis suppletis; auriculis inæqualibus, rectis, argutè serratis, dentatis; intùs violascente.

Inhab. West coast of Veragua. In seventeen fathoms, among sandy mud.

A beautiful and delicate shell, traversed by numerous small finely serrated ribs, a large portion of which are gathered into five bundles, the others being less aggregated and occupying the interspaces. The auricles differ in size, and are strongly grooved, with intervening sharp ridges. Within, the valves are coarsely ribbed, and of a rich peach colour.

251. *PECTEN coruscans*, (Plate XVII, fig. 3.) Testâ suborbiculari, planiusculâ, tenui, inæquiauriculatâ, pallidè violascente, prope umbones strigis parvis lacteis obliquis indutâ; valvis convexiusculis, consimilibus, dextrâ pallidiore, costis quatuordecem serratis, argutè sulcatis, interstitiis sulcatis; auriculis inæqualibus, serrato-sulcatis, posticâ minimâ, obliquâ; intùs pallescente.

Inhab. Port Anna Maria, Nukuhiva, Marquesas Islands. In seven fathoms, on a sandy floor.

Some small milk-white strigæ traverse the valves near the umbos in an oblique direction, and are very characteristic. The ribs are very minutely and sharply sculptured, and they retain the same structure on both valves. Each rib is divided by the sulci into about five smaller, the odd one being situated on the summit and giving it a sharp-keeled edge.

FAMILY—ARCACEÆ.

NUCULA. *Lamarck.*

252. *NUCULA Cumingii*, Hinds, Proceed. Zool. Soc. 1843, p. 97, (Plate XVIII. fig. 1.) Testâ ellipticâ, tenui, epidermide virente indutâ, anticè abbreviatâ, subrostratâ, posticè elongatâ, rotundatâ; margine ventrali acuto, anticè subemarginato, dorsali postico, prominulo; cardine anticè dentibus 6, posticè 19-20.

Inhab. The Asiatic analogue of *N. obliqua*, and is widely diffused over the seas of the Indian Archipelago. It has been obtained at New Guinea, Straits of Macassar; Bolinao, San Nicholas, Sual and Bassey in the Philippines; Singapore; and Straits of Malacca; in a depth of water varying from seven to twenty-three fathoms, on a floor of mud and sandy mud.

It is distinguished from *N. obliqua* by the disposition to rostration of the anterior limb, prominent dorsal margin, slight indentation at the anterior part of the ventral margin, and larger size.

253. *NUCULA mitralis*, Hinds, l. c. p. 97, (Plate XVIII. fig. 2.) Testâ conoidali, solidulâ, epidermide fuscâ indutâ, anticè brevissimè abbreviatâ, rectâ; margine dorsali postico inclinato, marginibus ventralibus crenulatis; cardine anticè dentibus 10, posticè 28-30.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

The very contracted and straight anterior margin of this shell gives it the shape of a mitre, or other similar elevated head-dress.

254. *NUCULA pulchra*, Hinds, l. c. p. 97, (Plate XVIII. fig. 3.) Testâ ellipticâ, solidâ, sulcatâ, interstitiis transversim striatis; marginibus ventralibus crenulatis; cardine anticè dentibus 9, posticè 27-29.

Inhab. L'Agulhas Bank, Cape of Good Hope. From seventy fathoms.

This species very closely resembles *N. Duchastelii*, Nyst, a fossil from the province of Antwerp, but is rendered distinct by its continuous, not interrupted concentric lamellæ, and by its striated instead of smooth lunule. Among the numerous species of *Nucula*, these two are conspicuous for their strongly marked and distinguishing characters.

255. *NUCULA divaricata*, Hinds, l. c. p. 97, (Plate XVIII. fig. 4.) Testâ ellipticâ, anticè

excavatâ, subacuminatâ, posticè rotundatâ, lineis divaricatis striatâ; marginibus ventralibus crenulatis; cardine anticè dentibus 7, posticè 22-24.

Inhab. China Sea. From eighty-four fathoms.

A single valve only was brought up from this great depth, and presents a character in its sculpture which has not hitherto been met with in any recent species, but which is also found in the following. This peculiarity consists of the presence of lines diverging from an angle near the middle of each valve. It however occurs in an English fossil, *N. Cobboldiæ*.

256. *NUCULA castrensis*, Hinds, l. c. p. 98, (Plate XVIII. fig. 5.) Testâ ellipticâ, anticè rotundatâ, epidermide olivaceâ indutâ; lineis divaricatis; marginibus ventralibus crenulatis; cardine anticè dentibus 5, posticè 11.

Inhab. Sitka, North-west America. A single specimen was dredged in the harbour, from seven fathoms, sand.

257. *NUCULA tumida*, Hinds, l. c. p. 98, (Plate XVIII. fig. 6.) Testâ ellipticâ, tumidâ, striatâ; marginibus ventralibus integerrimis: cardine anticè dentibus 6, posticè 15; intùs læviter striatâ.

Inhab. Straits of Malacca. From seventeen fathoms, among mud.

258. *NUCULA marmorea*, Hinds, l. c. p. 98, (Plate XVIII. fig. 7.) Testâ ellipticâ, solidulâ, albidâ, sulcatâ; liris ad angulum planulatis; latere antico brevi, subacuminato; marginibus ventralibus minutè crenulatis.

Inhab. Straits of Malacca. From seventeen fathoms, in society with *N. tumida*.

259. *NUCULA declivis*, Hinds, l. c. p. 98, (Plate XVIII. fig. 8.) Testâ parvâ, obliquè ellipticâ, solidulâ, epidermide tenui, fuscâ indutâ; latere antico brevi; margine dorsali longè inclinato, ventralibus crenulatis.

Inhab. — ?

A still more oblique shell than *N. pisum*, to which it is closely allied.

260. *NUCULA Belcheri*, Hinds, l. c. p. 98, (Plate XVIII. fig. 11.) Testâ politâ, oblongâ, sulcatâ, anticè elongatâ, truncatâ, angulatâ; ab umbone biangulatâ, tertio intermedio minori; dentibus numerosis, serierum ambarum numero subæquali; margine ventrali subrecto.

Inhab. L'Agulhas Bank, Cape of Good Hope. Dredged from a depth of forty to fifty-four fathoms.

261. *NUCULA retusa*, Hinds, l. c. p. 99, (Plate XVIII. fig. 9.) Testâ parvâ, nitidâ, lævigatâ, subæquilaterali, anticè retusâ, subacuminatâ; umbonibus elevatis.

Inhab. St. Nicholas, Philippine Islands; Straits of Macassar.

N. retusa is distinguished from *N. nicobarica*, to which it bears some affinity, by being nearly equilateral, smooth, polished, and with the anterior portion slightly disposed to terminate in a point.

262. *NUCULA lata*, Hinds, l. c. p. 99, (Plate XVIII. fig. 10.) Testâ oblongâ, politâ, planulatâ, lineis impressis excavatâ; anticè elongatâ, latè rostratâ, posticè rotundatâ; margine dorsali antico prominulo; umbonibus parvis.

Inhab. New Guinea. In from five to twenty-three fathoms, among mud.

263. *NUCULA cœlata*, Hinds, l. c. p. 99, (Plate XVIII. fig. 13.) Testâ luteo-virente, oblongâ, argutè sulcatâ; anticè arcuatè rostratâ, sulcis paululùm oblitteratis; umbonibus prominulis.

Inhab. California, between $38^{\circ} 18'$ and $34^{\circ} 24'$ north latitude; namely, at Russian Bodegas, San Francisco, and Santa Barbara. In from six to ten fathoms.

More ventricose and acutely beaked than *N. pella*, and presenting a partial obliteration of the sulci near the anterior dorsal margin.

264. *NUCULA ventricosa*, Hinds, l. c. p. 100, (Plate XVIII. fig. 16.) Testâ oblongâ, pallidè luteâ, ventricosâ, sulcatâ; anticè subrectè rostratâ; umbonibus magnis, prominentibus; margine ventrali anticè coarctato.

Inhab. Straits of Malacca. From seventeen fathoms, mud.

The character of the sulcation is very different to that of the preceding species and of *N. pella*. Here it presents the most usual features of regular furrows with intervening ridges; but in the other two species the ridges are inclined planes, having an inclination towards the ventral margin. In this direction they consequently present a number of step-like elevations, but not in the contrary.

265. *NUCULA recta*, Hinds, l. c. p. 100, (Plate XVIII. fig. 15.) Testâ oblongâ, tumidâ, inclinatè sulcatâ, rectè et attenuatè rostratâ, posticè rotundatâ.

Inhab. New Guinea. In seven fathoms.

266. *NUCULA excavata*, Hinds, l. c. p. 100, (Plate XVIII. fig. 17.) Testâ globosâ, sulcatâ, gibbosè rostratâ, anticè carinatâ; lunulâ excavatâ, ovali, striatâ.

Inhab. Panama. Dredged among mud in thirty fathoms.

267. *NUCULA lyrata*, Hinds, l. c. p. 100, (Plate XVIII. fig. 12.) Testâ oblongâ, nitidâ, angulatè sulcatâ, acutè subrectè rostratâ, posticè elongatâ, rotundatâ; margine ventrali acuto integro.

Inhab. Panama. From thirty fathoms.

268. *NUCULA puellata*, Hinds, l. c. p. 100, (Plate XVIII. fig. 18.) Testâ oblongâ, nitidâ, læviter striatâ, anticè breviter arcuatè rostratâ, posticè rotundatâ; prope umbones turgidâ.

Inhab. Malacca. From ten to seventeen fathoms, coarse sand.

269. *NUCULA crispa*, Hinds, l. c. p. 100, (Plate XVIII. fig. 14.) Testâ oblongâ, turgidâ, sulcatâ, arcuatè rostratâ, anticè ab umbonibus exaratâ, posticè obtusè carinatâ; lunulâ ovali.

Inhab. Gulf of Nicoya. From thirty-six fathoms.

FAMILY—CARDIACEÆ.

CARDITA. *Bruguières.*

270. *CARDITA abyssicola*, (Plate XIX. fig. 3.) Testâ crassâ, retusâ, convexâ, gibbosâ, albâ, costis numerosis radiantibus; costis rotundatis, minutè lamellosis; lunulâ latè cordatâ; intùs lacteâ.

Inhab. Straits of Malacca. From a depth of upwards of a hundred fathoms, among mud.

FAMILY—VENERACEÆ.

VENUS. *Linnaeus.*

271. *VENUS Kellettii*, (Plate XIX. fig. 5.) Testâ obliquè cordatâ, solidâ, lævigatâ, castaneâ, transversim sulcatâ, seu potiùs lineis impressis exaratâ, intervallis latitudine variabilibus, ad extremitates laminis munitâ; lunulâ elongatè cordatâ.

Inhab. Island of Quibo, West coast of Veragua. In adhesive mud of a low temperature, in between thirty and thirty-four fathoms.

The specific name is a compliment to Captain Henry Kellett, R.N., C.B., who, during the expedition, commanded H.M.S. *Starling*, and is conspicuous for his attachment to science.

CYTHEREA. *Lamarck.*Subgenus TRIGONELLA. *Conrad.*

272. *CYTHEREA crassatelloides*, Conrad, Journ. Acad. Nat. Sciences, Philad. vol. vii. p. 253, (Plate XXI. fig. 1.)

Inhab. San Diego, California. On a mud bank in the harbour.

It is unquestionably a satisfaction to be enabled to bring a fine shell like the present into more general repute, and to introduce it to English collections. This is one of a group of new shells brought from California by Mr. Nuttall, and described in 1837 by Conrad. Very recently a number of shells from the same coast have been described by M. Deshayes in the "Revue Zoologique," and apparently in ignorance of the labours of the former; hence some species have been redescribed. The subgeneric designation of Conrad has been in previous use as early as 1778 by Da Costa in his *British Conchology*; and some kindred words have been scarcely less happy, as *Trigona* of Schumacher has been employed in Entomology, and *Trigonia* of Bruguières likewise in Botany; but

here the seniority is in favour of Conchology. As I am not aware that Conrad has characterized his subgenus, or more than indicated it, anywhere, we are unable to speak confidently as to its value or importance. The specimen chosen for illustration is handsomely banded; but the greater number of individuals are of an uniform fawn colour.

FAMILY—CYCLADACEÆ.

CYRENA. *Lamarck.*

273. CYRENA *obesa*, Hinds, Ann. Nat. Hist. vol. x. p. 81, (Plate XXI. fig. 6.) Testâ ovatâ, turgidâ, flavo-virente, transversim striatâ; natibus subintegris; dentibus lateralibus serrulatis; latere antico convexo; intùs pallidè violaceâ.

Inhab. In the rivers, Feejee Islands.

The umbones of this shell are so perfect as to be nearly entire, and only sufficiently erose to bear out one of the features which forms a portion of the character of the genus. Towards the slope, the epidermis is thrown into several small angular waves, and is everywhere of a fine yellowish green colour.

274. CYRENA *tenebrosa*, Hinds, l. c. p. 81, (Plate XXI. fig. 7.) Testâ ovatâ, fusco-virente, transversim striatâ; natibus valdè erosis; dentibus lateralibus serrulatis; latere antico rectiusculo; intùs violaceâ.

Inhab. In the rivers, Feejee Islands.

Both these species are from the same locality, and are not unlike. This is flatter, of a darker colour, with some disposition to send an angle from the umbones, which again are very erose. Within, on the broad extremity of the valves, and towards the hinge, it is of a deep violet colour.

FAMILY—NYMPHACEÆ.

LUCINA. *Bruguières.*

275. LUCINA *fenestrata*, (Plate XIX. fig. 2.) Testâ orbiculari, complanatâ (junioribus elevatioribus), albidâ, lineis longitudinalibus transversis decussatis cancellatâ et asperatâ, posticè emarginatâ; lunulâ lineari; margine subcrenatâ.

Inhab. Monte Christi; San Blas. In seven to fourteen fathoms.

PSAMMOBIA. *Lamarck.*

276. PSAMMOBIA *decora*, Hinds, Ann. Nat. Hist. vol. x. p. 81, (Plate XIX. fig. 6, 7.) Testâ

oblongâ, tenui, cinnamomeo-brunneâ; striis concentricis; valvâ dextrâ planiusculâ, sinistrâ subventricosâ; pallidè violaceo radiatâ; intùs violaceâ.

Inhab. San Diego, California.

This shell is covered with a fine cinnamon-brown epidermis, through which four pale violet rays are visible. One of these traverses nearly the centre of the valve, and the other three are clustered towards the slope on its posterior margin. The right valve is nearly plane, but the other is somewhat ventricose.

TELLINA. *Linnaeus.*

277. *TELLINA fucata*, (Plate XXI. fig. 4.) Testâ valdè transversâ, oblongâ, sublineari, lævigatâ, nitidâ; latere antico rotundato, postico majusculo, elongato, rotundato, ab umbonibus subprominulo; margine ventrali subrecto, acuto; epidermide olivaceâ indutâ; ligamento externo.

Inhab. Bay of Magdalena, California.

278. *TELLINA bodegensis*, (Plate XXI. fig. 2.) Testâ transversâ, oblongâ, albâ, nitidâ, concentricè striatâ; latere antico majusculo, elongato, rotundato, postico nasuto, ad extremitatem truncato, ab umbonibus subprominulo; liris acutis, versùs umbones respectantibus; ligamento subinterno.

Inhab. Russian Bodegas. From seven fathoms, on a sandy floor.

279. *TELLINA rhodora*, (Plate XXI. fig. 3.) Testâ transversâ, oblongâ, valdè inæquilaterali, lævigatâ, politâ, versùs marginem roseâ; latere antico majusculo, elongato, rotundato, postico retuso, obtusè nasuto, ab umbonibus abruptè rotundato; margine ventrali subrecto, posticè paulisper emarginato; ligamento externo; intùs roseâ.

Inhab. Straits of Macassar.

The two latter species are regarded as undescribed on the authority of Mr. Sylvanus Hanley, whose researches in this genus have been extensive, and promise to flood us with a multitude of new species.

FAMILY—CORBULACEÆ.

CORBULA. *Bruguières.*

280. *CORBULA crassa*, Hinds, Proceed. Zool. Soc. 1843, p. 55, (Plate XX. fig. 1, 2, 3.) Testâ solidâ, incrassatâ, elevatâ, albidâ, inæquilaterali, latere antico paululùm superante, longitudinaliter sulcatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbone ad marginem posticam biangulatâ; valvarum margine ventrali inclausâ, gibbosissimâ, sinistræ posticè denticulatâ; umbonibus obliquis, posticis; intùs fuscâ.

Inhab. Straits of Macassar; Straits of Malacca; in from seven to thirty fathoms, on a floor of coarse sand or gravel.

Remarkable for the preponderance of the bulk of the anterior half over the posterior, a circumstance which also occurs in *C. bicarinata*. This, however, depends in some measure on the age, and is thus most conspicuous in those specimens which may be considered as beyond adult age.

281. *CORBULA tunicata*, Hinds, l. c. p. 55, (Plate XX. fig. 4, 5.) Testâ ovato-trigonâ, obliquâ, anticè rotundatâ, posticè nasutâ, excavatâ, ab umbonibus angulatâ; valvis inæqualibus, dextrâ præcipuè maximâ, valdè sulcatâ, epidermide tenui corneâ indutâ, sinistrâ prope umbonem sulcatâ, aliter epidermide densâ indutâ; umbonibus obliquis posticis; intùs fuscâ.

Inhab. Straits of Macassar; L'Agulhas Bank, Cape of Good Hope; from seventy fathoms, on a gravelly bottom.

282. *CORBULA cuneata*, Hinds, l. c. p. 55, (Plate XX. fig. 6.) Testâ ovato-trigonâ, æquilateralî, solidâ, complanatâ, sulcatâ, anticè rotundatâ, posticè angulatâ; valvis subæqualibus, marginibus ventralibus gibbosis inclausis; umbonibus rectis; intùs purpurascete.

Inhab. L'Agulhas Bank, Cape of Good Hope; from seventy fathoms.

283. *CORBULA fragilis*, Hinds, l. c. p. 56, (Plate XX. fig. 11.) Testâ ovatâ, tenui, albidâ, striatâ, striis transversis minutissimè reticulatâ, anticè subproductâ, rotundatâ, posticè elongatâ, ab umbonibus subrotundatâ; valvæ dextræ margine ventrali acutâ, productâ; umbonibus rectis lævigatis, æqualibus.

Inhab. West coast of Veragua; from eighteen fathoms, mud.

284. *CORBULA albuginosa*, Hinds, l. c. p. 56, (Plate XX. fig. 10.) Testâ retuso-ovatâ, tenui, anticè rotundatâ, posticè subelongatâ, rotundatâ; valvis valdè disparibus, dextrâ longitrorsum striatâ, pallidâ, margine ventrali productâ, acutâ, sinistrâ lævigatâ, lineis elevatis radiantibus, epidermide fuscâ indutâ; umbonibus albidis, nitidis, inæqualibus.

Inhab. New Guinea; Straits of Macassar; from seven to twenty-two fathoms, mud and coarse sand.

285. *CORBULA obesa*, Hinds, l. c. p. 57, (Plate XX. fig. 12.) Testâ ovatâ, tenui, ventricosâ, pallidâ, striatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbonibus acutè angulatâ; valvarum marginibus ventralibus inclausis, gibbosis; umbonibus rectis, lævigatis.

Inhab. The west coast of America, between $8^{\circ} 57'$ and $21^{\circ} 32'$ north latitude, in from twenty-two to thirty-three fathoms, mud; namely, Panama, coast of Veragua, and San Blas.

286. *CORBULA speciosa*, Hinds, l. c. p. 57, (Plate XX. fig. 7, 8.) Testâ ovato-trigonâ, anticè rotundatâ, posticè excavatè angulatâ, albidâ, sanguineo densè multiradiatâ; valvis valdè inæqualibus, marginibus ventralibus inclausis, dextrâ rotundatâ, sulcatâ, sinistrâ subplanulatâ, striatâ; umbonibus rectis, subplanulatis; intùs albidâ.

C. radiata, Sowerby, Proc. Zool. Soc. p. 36. 1833.

Inhab. Panama; from six fathoms, mud. Gulf of Nicoya, Central America.

This shell has been described as *C. radiata*, Sow., a name previously assigned by M. Deshayes to a fossil species. The description also was drawn up

from such an indifferent shell, that it was almost by accident I discovered it was to apply to my specimens. I have therefore been under the necessity of recording a new description.

287. *CORBULA modesta*, Hinds, l. c. p. 57, (Plate XX. fig. 9.) Testâ ovato-trigonâ, complanatâ, pallidâ, radiatâ, profundè sulcatâ, anticè rotundatâ, posticè ad extremitatem truncatâ, ab umbonibus angulatâ; valvarum marginibus ventralibus inclausis; umbonibus parvis, subæqualibus, roseis; intùs roseâ.

Inhab. Straits of Macassar; from seven fathoms, coarse sand.

288. *CORBULA solidula*, Hinds, l. c. p. 58. Testâ parvâ, ovatâ, subtrigonâ, solidulâ, elevatiusculâ, æquilaterali, sulcatâ, anticè rotundatâ, posticè angulatâ; valvarum marginibus ventralibus inclausis, gibbosis; umbonibus rectis lævigatis.

Inhab. Straits of Macassar; from seven fathoms, coarse sand.

289. *CORBULA marmorata*, Hinds, l. c. p. 58, (Plate XX. fig. 13.) Testâ parvâ, oblongâ, solidulâ, lævigatâ, marmoratâ, anticè rotundatâ, posticè subangulatâ; valvarum marginibus ventralibus inclausis; umbonibus obliquis, anticis; ante umbones sanguineo maculatâ.

Inhab. West coast of Veragua; from twenty-six fathoms, mud.

290. *CORBULA eburnea*, Hinds, l. c. p. 58, (Plate XX. fig. 14.) Testâ parvâ, ovatâ, subtrigonâ, eburneâ, solidulâ, complanatâ, lævigatâ, obsoletè sulcatâ; margine ventrali gibbosâ; umbonibus parvis, subrectis, nitidis; intùs corneâ.

Inhab. North coast of New Guinea. From seven to sixty fathoms, coarse sand and mud.

This shell closely approaches *C. solidula*, but is distinguished by its somewhat more triangular shape, polished, ivory-like, flattened valves, and the slightly sulcate sculpture.

291. *CORBULA lævis*, Hinds, l. c. p. 59, (Plate XX. fig. 15.) Testâ ovali, æquilaterali, pallidâ, tenui, lævigatâ, complanatâ; valvæ dextræ margine ventrali acutâ, productâ; umbonibus rectis, suberosis.

Inhab. Hong-Kong, China.

Both valves are flattened towards their ventral margins in a very characteristic manner.

NEÆRA. Gray.

Neæra, Gray, 1834; *Cuspidaria*, Nardo, 1839.

292. *NEÆRA elegans*, Hinds, Proceed. Zool. Soc. 1843, p. 76, (Plate XX. fig. 18.) Testâ

oblongâ, tenui, lineis salientibus transversis ornatâ; rostro angulato, corrugato; valvarum margine ventrali acutâ, simplici.

Inhab. New Guinea, China Sea, and Singapore. On a muddy floor, in from seven to eighteen fathoms.

293. *NEÆRA Gouldiana*, Hinds, l. c. p. 77, (Plate XX. fig. 17.) Testâ oblongâ, fragili, hyalinâ, ventricosâ; costis duodecim radiantibus; valvis valdè inæqualibus; rostro lineis tribus obliquis elevatis.

Inhab. New Guinea; Bay of Manila, Philippines. In from seven to thirty fathoms, sandy mud.

The specific name is in honour of Dr. Gould, the author of the able and luminous Report on the Mollusca of Massachusetts.

294. *NEÆRA casta*, Hinds, l. c. p. 77, (Plate XX. fig. 16.) Testâ oblongâ, fragili, hyalinâ, ventricosâ; costis numerosis radiantibus, minoribus alternantibus; transversim subtilissimè striatâ; rostro breviusculo, parvo, lineis obliquis elevatis instructo.

Inhab. New Guinea; dredged from a muddy floor in seven fathoms.

295. *NEÆRA didyma*, Hinds, l. c. p. 78, (Plate XX. fig. 19.) Testâ oblongâ, lævigatâ, albâ; costis duabus radiantibus; margine dorsali anticâ prominulâ; rostro lato, subtruncato.

Inhab. The west coast of Veragua, in twenty-six fathoms, mud; in society with *N. costata*.

On the anterior and ventral margin there is a disposition to the formation of a number of small ribs; the shell is otherwise smooth and left to the occupation of the two prominent ribs, which eminently distinguish it.

296. *NEÆRA rosea*, Hinds, l. c. p. 78, (Plate XX. fig. 20.) Testâ oblongâ, albidâ, epidermide tenui striatâ indutâ; valvis inæqualibus, dextrâ majori; rostro attenuato, roseo.

Inhab. New Guinea, in seven fathoms, mud.

Not unlike diminutive specimens of *N. cuspidata*; the anterior portion of the shell, however, does not occupy more than a third of its entire length; the beak is more attenuated and of a rose-colour; and I cannot perceive any vestige of the angular line which extends posteriorly from the umbo.

FAMILY—MACRACEÆ.

PYTHINA. *Hinds.*

Testa transversa, subæquilateralis, æquivalvis. Valva altera dente unico mediano parvo, duabus lateralibus, altera dentibus duabus lateralibus. Ligamentum internum. Impressiones musculares duæ, rotundatæ. Impressio pallii rectiuscula, sinu nullo.

297. *PYTHINA Deshayesiana*, (Plate XIX. fig. 8, 9.) Testâ transversâ, subtrigonâ, politâ, albâ, sulcis tribus mediò divaricatis ornatâ, interstitiis rotundatis; margine rectiusculâ.

Inhab. New Ireland.

The present interesting and remarkable shell seems to have been brought to England many years back, as Mr. G. B. Sowerby, drawing on his unrivalled fund of information in Conchology, informs me that it was known in the collection of Mr. Humphreys. It has recently, together with another undescribed species, been collected in the Philippine Islands by Mr. Cuming. The same generic form is also known in a fossil state, as a shell is represented by Deshayes, Coq. Foss. des env. de Paris, v. i. t. xl. f. 4, 5, 6, under the name of *Modiola arcuata*, Lamarck, which unquestionably belongs here. Like the undescribed species in Mr. Cuming's collection, this fossil shell is remarkably constricted towards the middle of its interior margin, causing the lateral portions to appear as two lobes. Mr. Sowerby also informs me that he has seen another and somewhat orbicular species, which should be referred to this group.

FAMILY—LINGULACEÆ.

LINGULA. *Bruguieres*.

298. *LINGULA albida*, (Plate XIX. fig. 4.) Testâ oblongâ, lævi, complanatâ, anticè truncatâ, ubiquè albidâ; pediculo brevi, cylindræco.

Inhab. Bay of Magdalena, California. In seven fathoms, among sandy mud.

This species is distinguished by its uniform dead white colour and very short pedicle, which does not exceed half the length of the shelly portion.

CIRRIPEDA.

FAMILY — ANATIFACEÆ.

TRILASMIS.* *Hinds*.

Testa pedunculata, trivalvis. Valvæ duæ laterales subobliquè ovales, complanatæ, lævigatæ, albæ; tertia dorsalis linearis, carinata. Pedunculus brevis, lævis.

* TRILASMIS; the Greek numeral for three, and ἑλασμα, a plate.

299. *TRILASMIS eburnea*, (Plate XXI. fig. 5.) Species unica.

Inhab. New Guinea. The specimens procured are all attached to the dead or separated spines of an echinus.

When the number of valves has been deemed of such importance in the formation of the generic groups of this family, no apology seems necessary when introducing another where so few as three complete the shelly covering. In previous instances, they have very rarely been observed under five, and from the frequency of this number it would appear typical. In the form before us, two flattish, white, oval valves, supported on a peduncle several times shorter than their length, completely cover the animal; whilst a third, narrow and linear, is situated between their dorsal margins. These offer no other prominent feature, and are otherwise rather conspicuous for their simplicity and uniformity.



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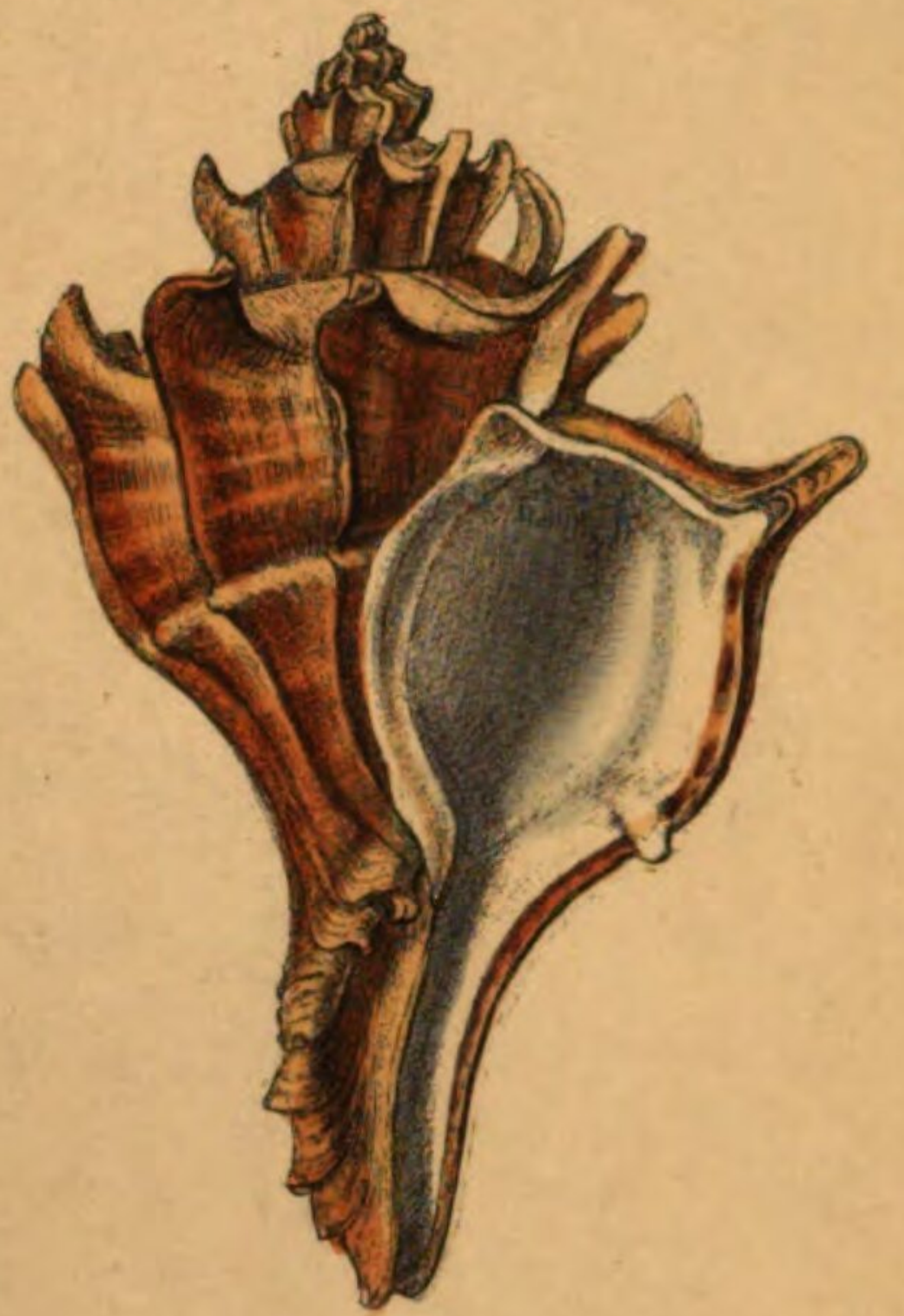
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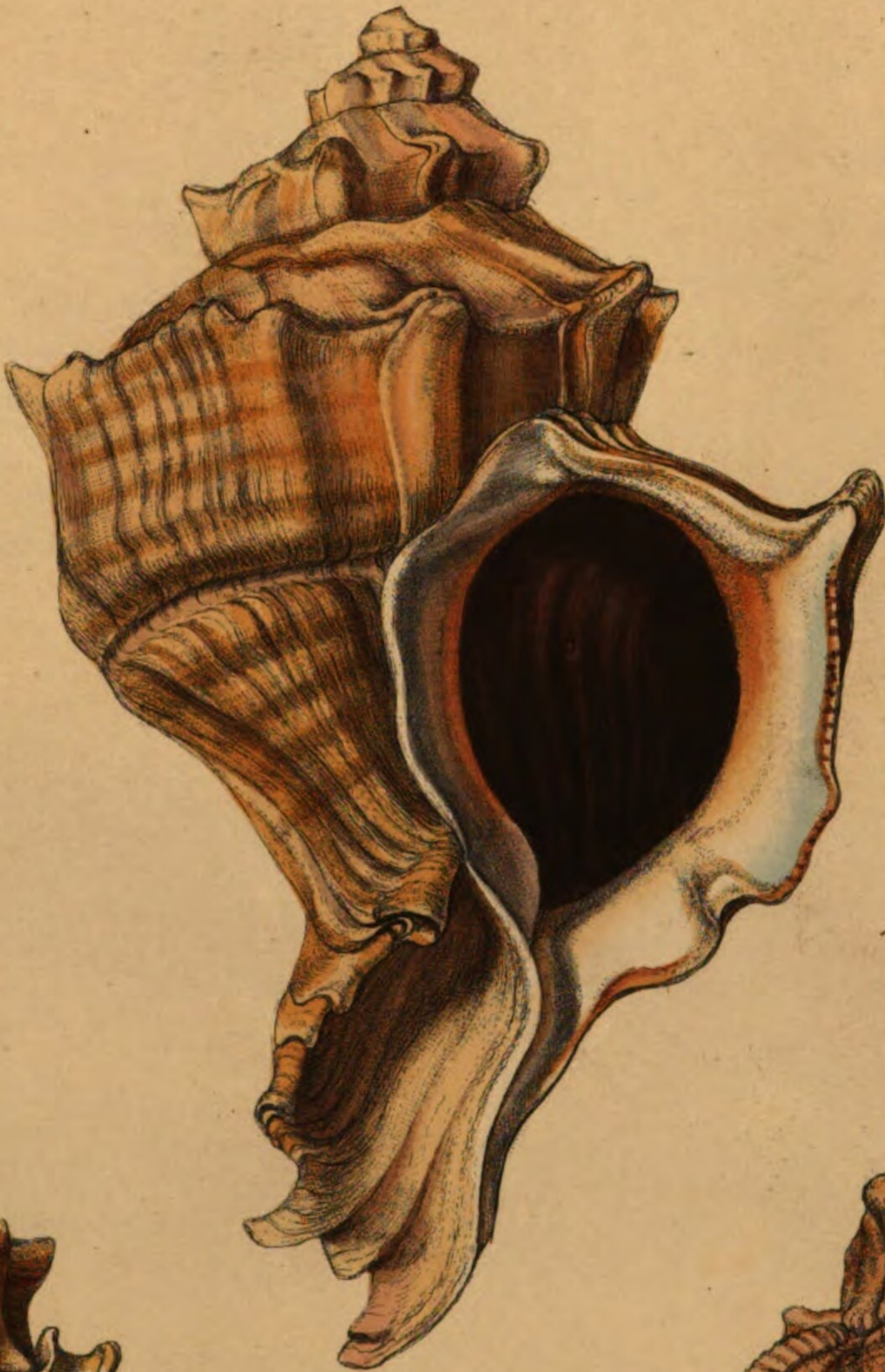
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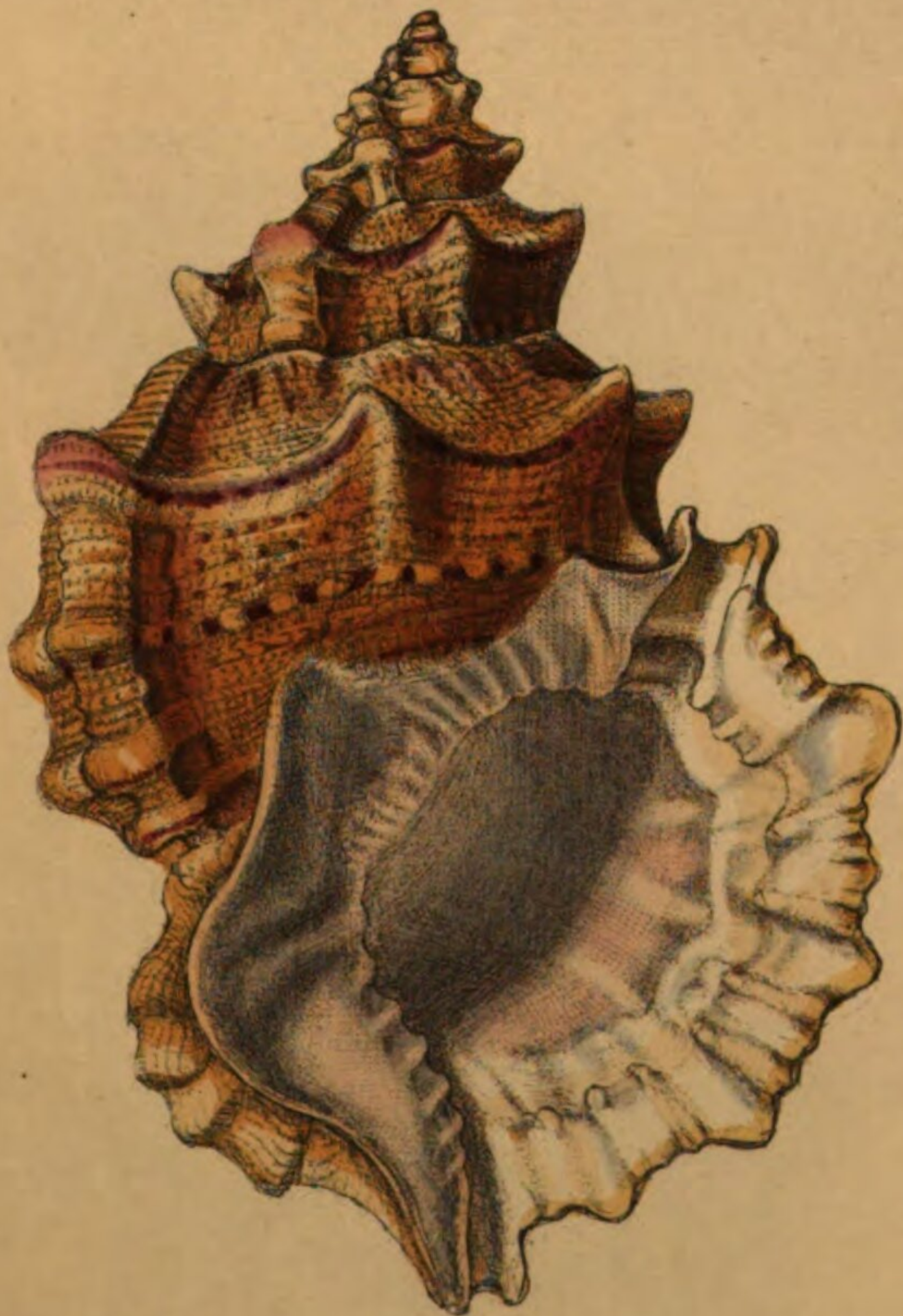
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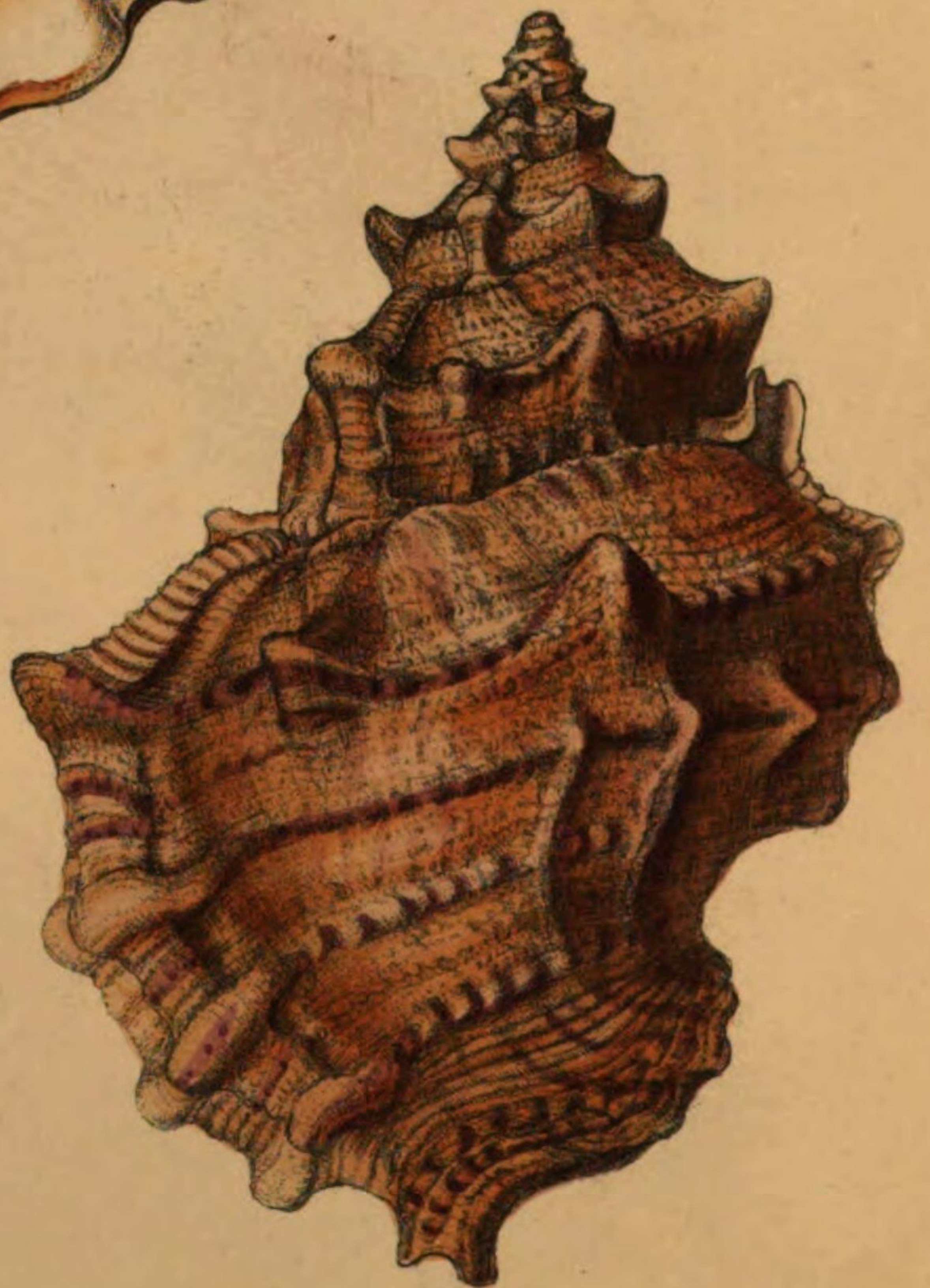
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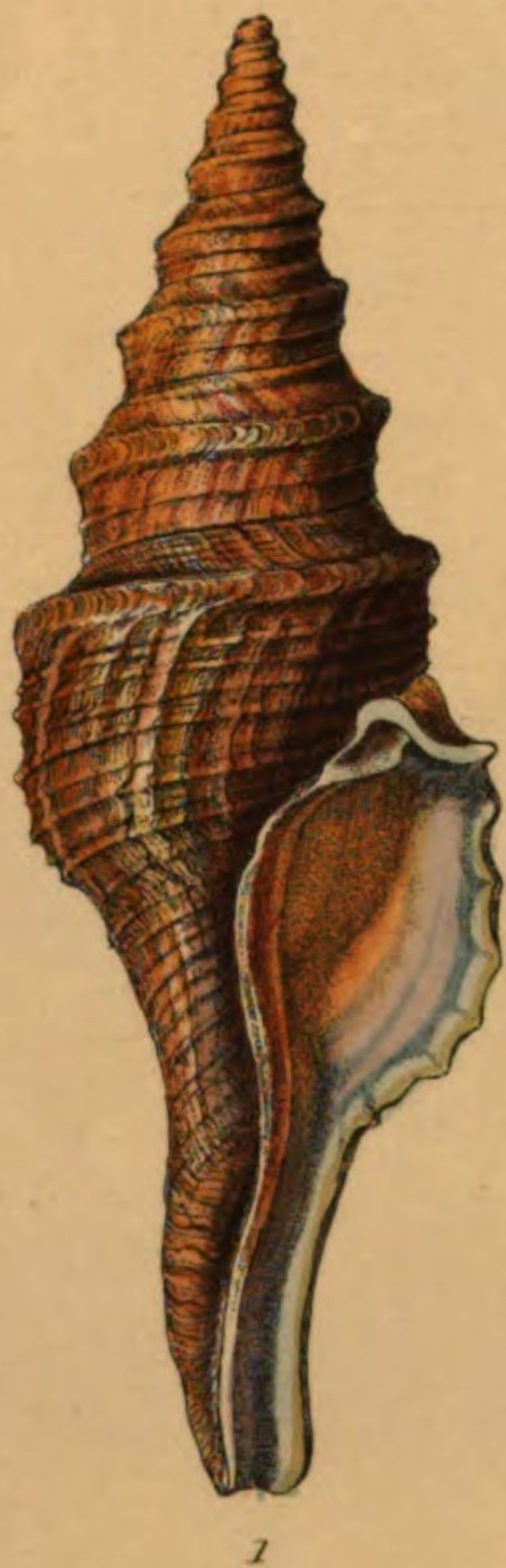
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TWICE NAT. DIAM.



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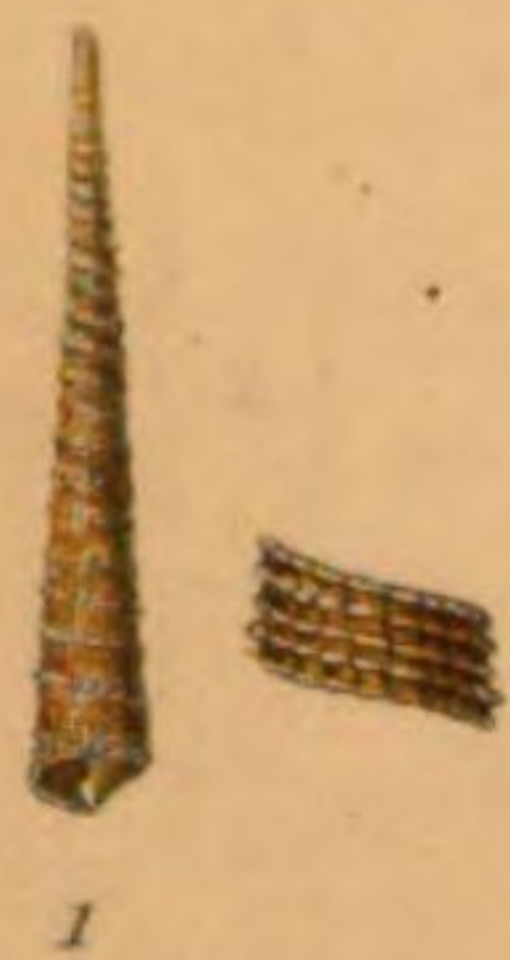
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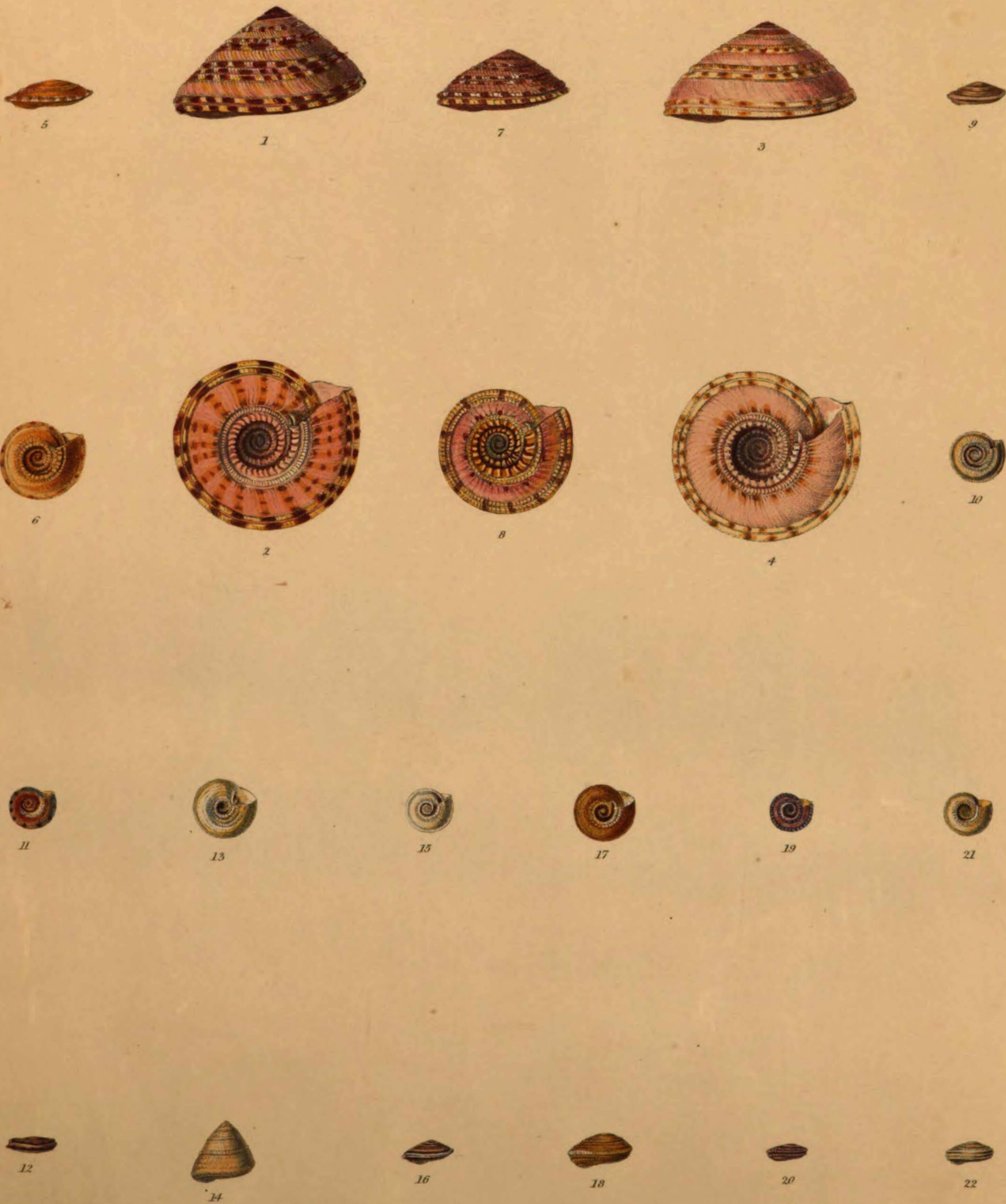
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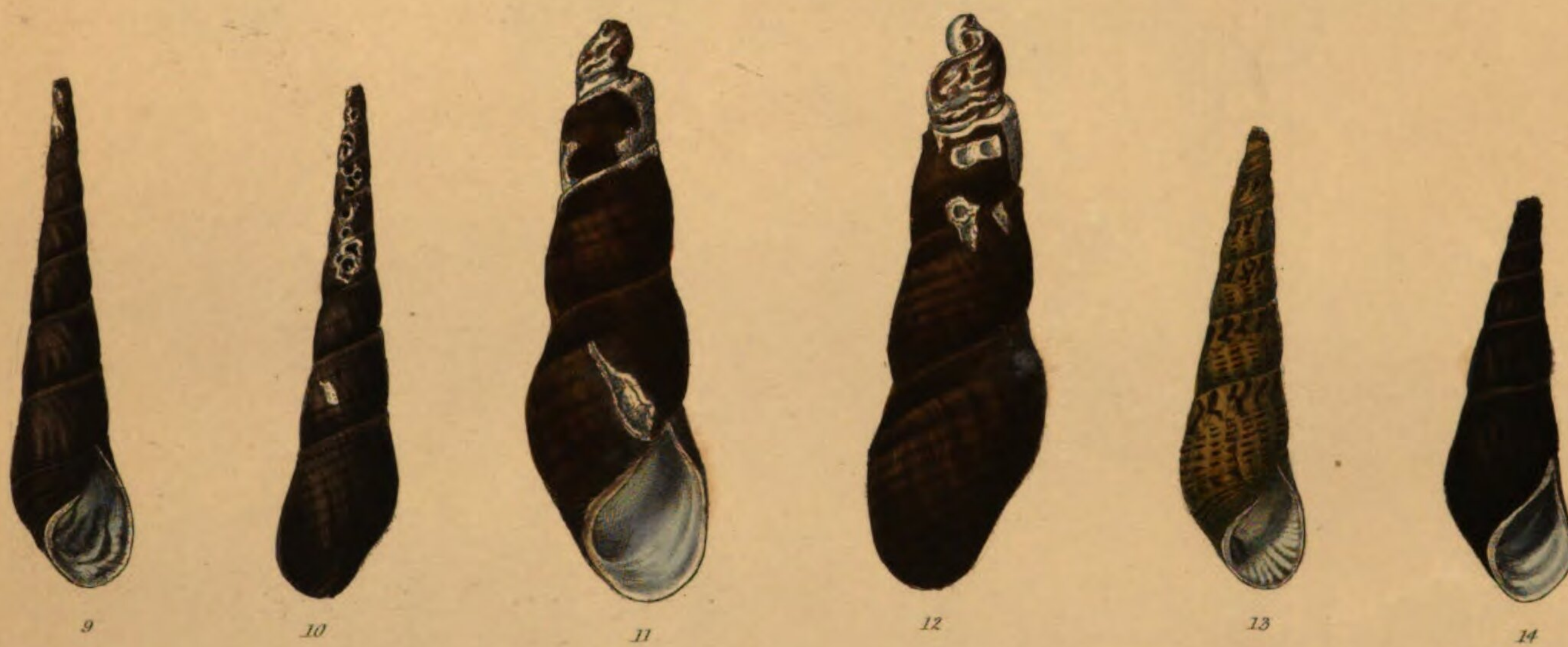


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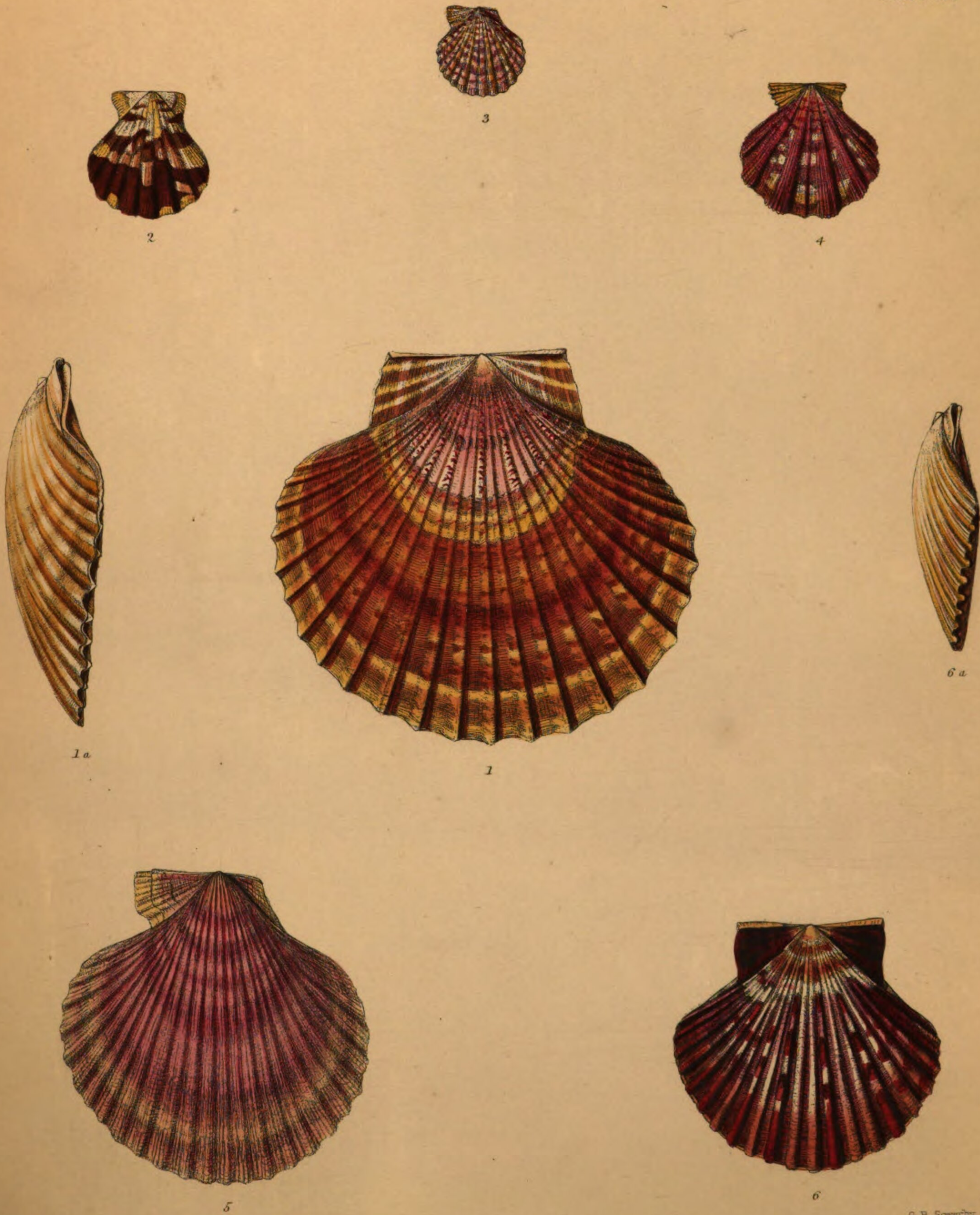


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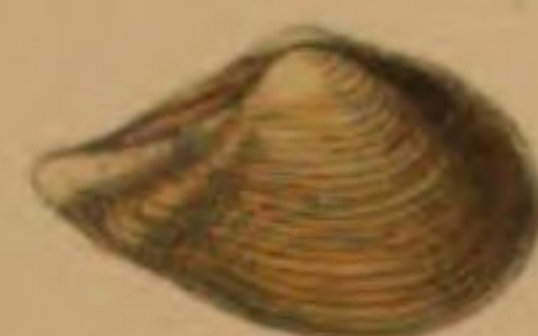
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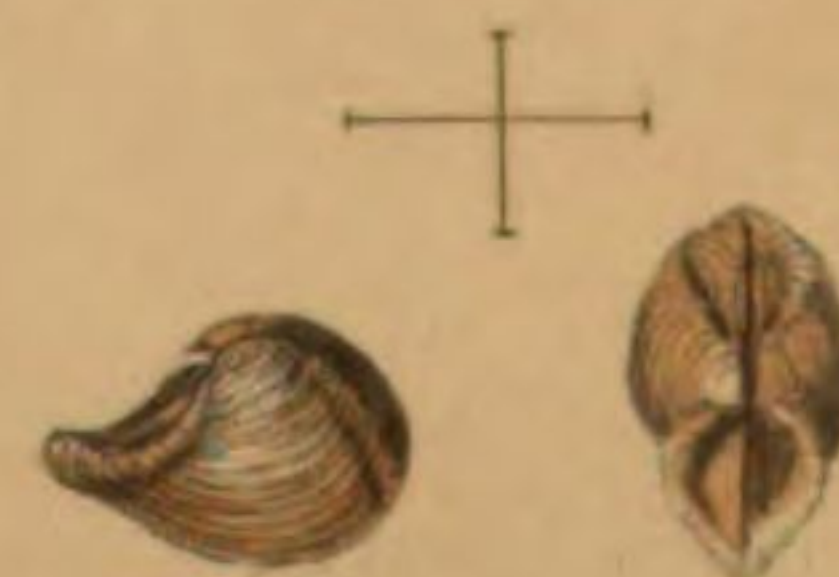
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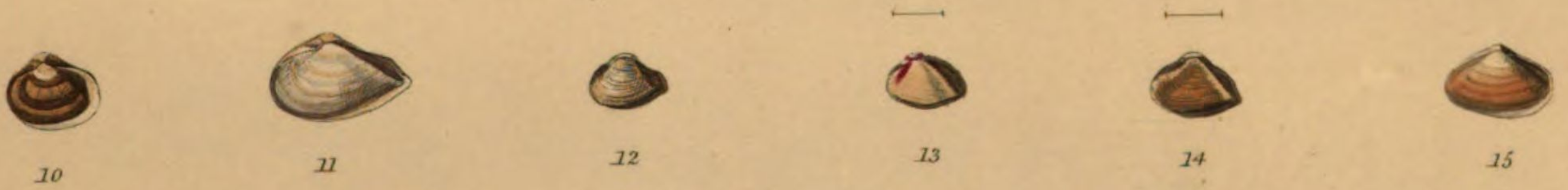
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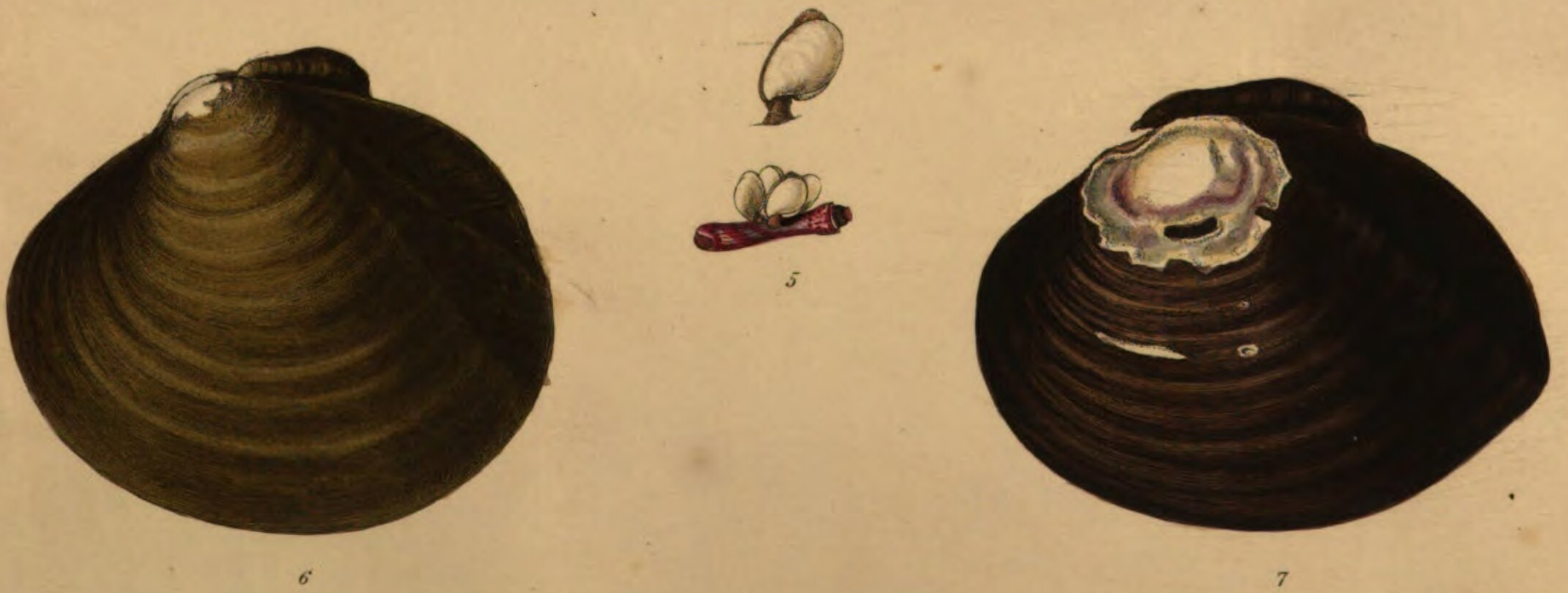


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Hinds, Richard Brinsley

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